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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

BY

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> "...... quos ipsa volentia rura
> Sponte tulere sua ...." VIRGIL.

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ENGLISH BOTANY.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA (*continued*).

THE remaining plants of this order belong to the

Nat. Order UMBELLIFERÆ,

one of the most extensive and remarkable groups among flowering vegetables. The species are all herbaceous, with hollow and furrowed or striated stems, alternate leaves, usually much divided, and dilated and sheathing at the base. The inflorescence is in umbels, simple or compound, generally the latter, with or without involucra. *Calyx* superior, nearly obsolete in the form of a thickened rim, or cloven into 5 minute segments. *Petals* 5, generally incurved at the point. *Stamens* 5, alternate with the petals. *Germen* inferior, 2-celled, crowned with a fleshy disc formed by the dilated bases of the styles. *Fruit* consisting of 2 single-seeded carpella, adhering by their faces to a central axis, but eventually separating; each carpellum is marked with elevated ridges, of which 5 are primary, and 4, alternating with them, secondary; the ridges are separated by interstices, in which, below the coat of the carpellum, are often seen certain linear vessels replete with a coloured oily matter, called vittæ.

The ridges and vittæ afford the most important features of distinction.

The umbelliferous plants are divided by most modern botanists into 12 tribes or sections.

TRIBE I. HYDROCOTYLINEÆ.

Umbels simple. *Fruit* laterally compressed.

GENUS CXL. HYDROCOTYLE. *White-Rot.*

GEN. CHAR. *Calyx* obsolete. *Petals* ovate, entire, acute, plane. *Fruit* compressed, biscutate. *Carpella* with 5 filiform ridges; those of the centre and sides often obsolete, the intermediate ones arched. No vittæ. *Seed* flattish in front, compressed, keeled.

A genus of obscure creeping herbs, with simple leaves, and inconspicuous green or pinkish flowers. Like many other plants which grow in swampy situations, they have been erroneously supposed by farmers to occasion the disease called the rot in sheep, whence the vulgar name. There is only one British species.

HYDROCOTYLE VULGARIS. *Marsh Penny-wort. White-Rot.* TAB. **379.**

Leaves peltate, orbicular, crenate. Umbels of about 5 nearly sessile flowers.

Hydrocotyle vulgaris, *E.B.* 751. *Smith* II. 96. *Lindley* 128. *Hooker ed.* 2. 124.

This little plant abounds on moist heaths and watery places in general, especially in a peaty soil, flowering in May and June. Its stems are perennial, creeping among the surrounding herbage, and rooting at the nodi or joints; from each of which spring several long petioles, supporting glossy peltate leaves, and one or more shorter flower-stalks terminating in compact umbels of pinkish flowers.

TRIBE II. SANICULEÆ.

Umbels imperfect or capitate. *Fruit* ovate, globose.

GENUS CXLI. SANICULA. *Sanicle.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* erect, obovate, with an abruptly inflexed segment. *Fruit* taper, subglobose. *Carpella* densely clothed with hooked prickles, no ridges, but numerous vittæ. *Seed* semiglobose. General *involucrum* lobed; partial of several leaves.

Imperfectly umbellate plants, with dark green palmate leaves. The central flowers of each cluster are usually barren, owing to the pistils not coming to maturity. The name *Sanicula*, from *sano*, 'to heal,' seems to have no relation to the properties of the genus. A single species only is indigenous to Britain.

SANICULA EUROPÆA. *Wood Sanicle.* TAB. **380.**

Radical leaves simple, deeply lobed, serrated. Flowers all sessile.

Sanicula europæa, *E. B.* 98. *Smith* II. 36. *Lindley* 127. *Hooker ed.* 2. 124.

A very common plant in woods, its dark green glossy foliage forming a strong contrast to the dead leaves of trees among which it grows. It is a perennial, flowering in May and June. Great healing virtues were ascribed to this herb formerly. Gerarde informs us that it was "used in potions, which are called vulnerarie potions, or wound drinkes, which make whole and sound all inward wounds and outward hurts." But its fame is with the departed. A slight degree of aromatic bitterness and astringency in the leaves does not appear to indicate the presence of any very active quality.

Genus CXLII. ERYNGIUM. *Eryngo.*

Gen. Char. *Calyx* 5-toothed. *Petals* erect, oblong, with long inflexed points. *Fruit* somewhat taper, obovate. *Carpella* covered with scales, without ridges or vittæ. *Seed* semitaper. *Involucrum* many-leaved. *Flowers* in compact heads, arranged upon a conical, scaly receptacle.

Plants of rigid texture, with dichotomous branching stems, spiny or very sharply serrated leaves, and generally blue flowers.

ERYNGIUM maritimum. *Sea Eryngo. Sea Holly.* Tab. **381.**

Radical leaves roundish, plaited, spinous, stalked; upper ones sessile. Scales of the receptacle 3-cleft.

Eryngium maritimum, *E. B.* 718. *Smith* II. 35. *Lindley* 127. *Hooker ed.* 2. *Appendix.*

A common plant in the loose sand of our sea-shores, which its long, creeping, and perennial roots assist in binding. The leaves are smooth, stiff, and of a glaucous hue, heightened by a mealy secretion upon the surface, which serves to repel the spray of the sea. No part of the plant is destitute of this necessary covering; even the natural blue colour of the petals is whitened by it. It flowers in July and August. The whole herb is sweetish to the taste, with a slight degree of aromatic pungency. The root, which is sold candied by the druggists, has long been celebrated as stimulating and restorative; and although its qualities have been rather overrated, it is still honoured with a place in our Materia Medica.

ERYNGIUM campestre. *Field Eryngo.* Tab. **382.**

Radical leaves twice or thrice pinnatifid; cauline ones twice only; all with spinous teeth. Scales of the receptacle entire.

Eryngium campestre, *E. B.* 57. *Smith* II. 35. *Lindley* 127. *Hooker ed.* 2. *Appendix.*

A very rare plant in England, but still met with in the habitats mentioned by Ray, viz. near Daventry, Plymouth, and Newcastle-upon-Tyne. It is a perennial, flowering in July and August.

In the remaining tribes the umbels are compound or perfect.

TRIBE III. AMMINEÆ.

Fruit laterally compressed; with primary ridges only.

GENUS CXLIII. CICUTA. *Cow-bane.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obovate, with an inflexed point. *Fruit* roundish, contracted at the sides, double. *Carpella* with 5 nearly flat, equal ridges, the lateral ones forming the margin. *Interstices* with single vittæ, which in the ripe fruit are more elevated than the ridges. *Seed* taper. General *involucrum* wanting, or of few leaves; partial many-leaved.

An aquatic genus, remarkable for the highly deleterious quality of at least one of its species, which ranks among the most formidable of our vegetable poisons. Flowers white.

CICUTA VIROSA. *Water Hemlock. Water Cow-bane.* TAB. **383.**

Leaves biternate; leaflets linear-lanceolate, decurrent. Umbels opposite to the leaves.

Cicuta virosa, *E. B.* 479. *Smith* II. 62. *Lindley* 123. *Hooker ed.* 2: 124.

A perennial, growing in ditches and about the margins of rivers and lakes, rising to the height of 3 or 4 feet, and flowering in August. Happily not very frequent in this country, being a fatal poison to cows, which will eat it early in the spring, when it grows in the water, and its fœtid and pungent flavour is not very perceptible. Its action upon the human system resembles that of the other acrid poisons, quickly inflaming and corroding the coats of the stomach. The best remedy, after a speedy emetic, is olive oil in large quantity. The plant is readily distinguished from the other British *Umbelliferæ* by the form of its leaves and the situation of the umbels. Horses, hogs, and goats are said to devour it with impunity.

GENUS CXLIV. APIUM. *Celery.*

GEN. CHAR. *Calyx* obsolete. *Petals* roundish, entire, with an involute point. *Fruit* roundish, laterally contracted, double. *Carpella* with five filiform equal ridges, the lateral ones forming the margin. *Interstices* with single vittæ, the outermost excepted, which have frequently 2 or 3. *Seed* gibbous, plane in front. *Involucra* wanting. *Flowers* greenish white.

Distinguishable from the preceding genus by the obsolete calyx; gibbous, instead of taper seed; and total absence of involucra.

APIUM GRAVEOLENS. *Smallage*, or *Wild Celery*. TAB. **384**.

Leaflets of the stem-leaves wedge-shaped. Stem furrowed.

Apium graveolens, *E. B.* 1210. *Smith* II. 76. *Lindley* 123. *Hooker ed.* 2. 124.

This species affords an instance of the change produced upon vegetables by cultivation. In our gardens it is the mild and wholesome celery: in a wild state, especially growing in the water, it is acrid and even poisonous. *Apium graveolens* is not uncommon in marshy places and ditches, especially near the sea, and on the banks of rivers whose waters are affected by its tides: when found in more inland situations it may be regarded as a truant from the garden. Being a biennial it varies in the time of flowering.

GENUS CXLV. PETROSELINUM. *Parsley*.

GEN. CHAR. *Calyx* obsolete. *Petals* roundish, incurved, entire, contracted into an inflexed lobe. *Fruit* ovate, contracted laterally, nearly double. *Carpella* with 5, equal, filiform ridges, the lateral ones forming a margin. *Interstices* with single vittæ. *Seed* gibbo-convex, plane in front. General *involucrum* few-leaved; partial many-leaved.

A genus, of which the parsley of our gardens is the type, recently separated from the preceding, from which it chiefly differs in the presence of involucra.

PETROSELINUM SATIVUM. *Common Parsley*. TAB. **384***.

Stem erect, striated. Leaves shining, doubly compound; segments of the lower leaves ovato-cuneate, trifid, toothed; of the upper, lanceolate, entire. Leaves of partial involucrum subulate. Rays of the umbel numerous, regular.

Petroselinum sativum, *E. B. Supp.* 2793. *Hooker ed.* 2. 125. Apium Petroselinum, *Linn.*

This very generally cultivated culinary herb has long become naturalized on old walls and rocks, especially in the South-west of England. It is a biennial, flowering in June and July. Flowers greenish white.

PETROSELINUM SEGETUM. *Corn Parsley*. TAB. **385**.

Leaves pinnate; leaflets roundish-ovate, cut, and serrated. Umbels drooping, rays few and very unequal.

Sison segetum, *Linn.*, *E. B.* 228. *Smith* II. 60. Petroselinum segetum, *Lindley* 123. *Hooker ed.* 2. 125.

This is far from being a common plant, though met with in tolerable abundance on chalky and calcareous soils in several parts of England. The root is annual or biennial, sending up several slender, wiry, branched, and spreading stems, from 12 to 18 inches high. The radical leaves spread in a circle close to the ground; those of the stem are few in number, often linear, or with the leaflets imperfectly developed. The plant is somewhat pungent and aromatic, especially the fruit; but its properties are not remarkable. Flowers in August. Petals pink.

GENUS CXLVI. TRINIA. *Honewort.*

GEN. CHAR. *Calyx* obsolete. *Petals* of the barren plant lanceolate, with a contracted involute point; of the fertile ovate, with a short inflexed point. *Fruit* laterally compressed, ovate. *Carpella* with 5 prominent, equal, filiform ridges, of which the lateral ones are marginal. *Interstices* without vittæ, or they are scarcely apparent, but a distinct canal under each ridge. *Seed* convex, flattish in front. *Involucra* various. *Flowers* whitish.

Remarkable among umbelliferous plants for bearing barren and fertile flowers upon different individuals; which circumstance, combined with the presence of vittæ beneath the ridges, has occasioned its separation as a genus from *Pimpinella*.

TRINIA GLABERRIMA. *Glabrous Honewort.* TAB. **386**.

Root fusiform, perennial. Stems angular, smooth. Leaves tripinnate, leaflets linear uniform. Involucra wanting, or of one leaf.

Seseli pumilum, *Linn.* Pimpinella dioica, *E. B.* 1209. *Smith* II. 90. Trinia glaberrima, *Hooker ed.* 2. 125. *Lindley* 124.

A rare species, found hitherto only on limestone rocks in the West of England, as on those of St. Vincent near Bristol, and at Uphill and Whorle Hill, Somersetshire. Dr. Wade met with it near Athboy in the county of Meath, Ireland. One of the most elegant of the *Umbelliferæ*, flowering in May and June, distinguished by its pale glaucous green hue, the linear uniform segments of its leaves, and its diœcious flowers.

GENUS CXLVII. HELOSCIADIUM. *Marsh-wort.*

GEN. CHAR. *Calyx* of 5 teeth, or obsolete. *Petals* ovate, entire, acute, or rather obtuse, with a point; the point straight or bent inward. *Fruit* compressed at the side, ovate, or oblong. *Carpella* with 5 filiform, equal, slightly prominent ridges, of which the lateral form a margin. *Interstices* with single vittæ. *Seed* more or less convex, nearly plane in front. *Involucra* various.

A genus of aquatic *Umbelliferæ*, distinguished more by general habit than particular features. Flowers white.

HELOSCIADIUM NODIFLORUM. *Procumbent Marsh-wort.* TAB. **387.**

Leaves pinnate; leaflets ovate, equally serrated. Umbels sessile, opposite to the leaves. Stem procumbent.

Sium nodiflorum, *E. B.* 639. *Smith* II. 57. Helosciadium nodiflorum, *Lindley* 122. *Hooker ed.* 2. 125.

A very frequent companion of the water-cress, in ditches and slow running streams, flowering in July and August. A creeping rooted perennial, distinguished by its procumbent or floating stems, neatly serrated leaflets, and nearly sessile umbels. The general involucrum is 1-leaved, deciduous; partial of 5 to 7 ovate, slightly concave, reflexed leaves. Apex of the petal scarcely incurved. The expressed juice of this plant stands recommended as a remedy in cutaneous diseases of the scorbutic kind. The magnitude of the dose, however, from 3 table-spoons full to 3 or 4 ounces, has probably occasioned its disuse, though it still has a place in the Pharmacopœia.

HELOSCIADIUM REPENS. *Creeping Marsh-wort.* TAB. **388.**

Leaves pinnate; leaflets roundish, deeply toothed. Umbels on stalks, opposite to the leaves. Stem creeping.

Sium repens, *E. B.* 1431. *Smith* II. 58. Helosciadium repens, *Lindley* 122. *Hooker ed.* 2. 125.

Scarcely distinct from the last in some of its variations: the smaller size, deeply toothed leaves, and stalked umbels, with a slight difference in habit, induced Jacquin to regard it as a separate species; and later botanists seem generally disposed to recognise it as such. It is a perennial, flowering in July and August, and found in several parts of our island, growing in watery places and boggy meadows, and on the borders, but not in the water, of ditches and rivulets.

HELOSCIADIUM INUNDATUM. *Least Marsh-wort.* TAB. **389.**

Leaves pinnate, segments pinnatifid; the lowermost (beneath the water) in many compound capillary segments. Umbels of 2 rays; partial 5-flowered. Stem creeping.

Sison inundatum, *E. B.* 227. Sium inundatum, *Smith* II. 58. Hydrocotyle inundata, *Fl. Brit.* 290. Helosciadium inundatum, *Lindley* 122. *Hooker ed.* 2. 126.

The incertitude of botanists in regard to the affinity of this species is shown by the above synonyms; but its assignment to the present genus is undoubtedly the least exceptionable of those it has hitherto undergone. It is a perennial or biennial plant, not uncommon in ditches and pools, and even in wet places that are only occasionally overflowed: in the former situations its most striking feature is the minute division of those leaves which grow submersed; a character sometimes met with in plants of very different structure growing under similar circumstances, but whose object is one of those phænomena in vegetable physiology, upon which, however man may be disposed to theorise, he is certainly unable satisfactorily to explain.

GENUS CXLVIII. SISON. *Bastard Stone-parsley. Stone-wort.*

GEN. CHAR. *Calyx* obsolete. *Petals* obcordate, deeply emarginate, with an incurved point. *Fruit* laterally compressed, ovate. *Carpella* with 5 equal, filiform ridges, of which the lateral ones are marginal. *Interstices* with single, short, clavate vittæ. *Seed* very convex, plane in front. *Involucra* few-leaved.

The original genus, *Sison*, has been greatly curtailed by modern botanists, and the plants formerly referred to it variously distributed. In its present form it contains only one British species.

SISON AMOMUM. *Hedge Stone-wort.* TAB. **390.**

Leaves pinnate. General umbel erect, of about 4 rays.

Sison Amomum, *E. B.* 954. *Smith* II. 60. *Lindley* 122. *Hooker ed.* 1. 126.

On moist hedge-banks in a calcareous soil this species is not unfrequent, and is readily distinguished by its powerful pungent and rancid aromatic odour. A biennial, rising to the height of 2 or 3 feet, and flowering in August.

GENUS CXLIX. ÆGOPODIUM. *Gout-weed.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, with an inflexed point. *Fruit* laterally compressed, ovate. *Carpella* with 5 filiform ridges, of which the lateral ones form the margin. No vittæ in the *interstices*. *Seed* taper, convex, plane in front. *Involucra* wanting.

Only distinguishable from the next genus, *Carum*, by the absence of vittæ.

ÆGOPODIUM PODAGRARIA. *Gout-weed. Herb-Gerarde.* TAB. **391.**

Root-leaves twice ternate; upper ones ternate.

Ægopodium Podagraria, *E. B.* 940. *Smith* II. 77. *Lindley* 123. *Hooker ed.* 2. 126.

A very troublesome weed, but confined in its habitats, requiring shade, moisture, and a rich soil. Hence it is often an inhabitant of old gardens, from which it is with difficulty eradicated, spreading wide and rapidly by its creeping roots, though rarely perfecting seed. A perennial, flowering in May and June. The root is pungent and aromatic, and was formerly used as a cataplasm in the gout, whence the vulgar name.

GENUS CL. CARUM. *Caraway.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, with an inflexed point. *Fruit* compressed at the sides, oblong. *Carpella* with 5 filiform, equal ridges, of which the lateral ones are marginal, their inner faces flat. *Interstices* with single vittæ. *Seed* taper, convex, flattish in front. *Involucra* various.

CARUM CARUI. *Common Caraway.* TAB. **392.**

Stem branched. Partial involucrum none. Leaves doubly pinnate, segments linear.

Carum Carui, *E. B.* 1503. *Smith* II. 86. *Lindley* 122. *Hooker ed.* 2. 126.

This is an imperfectly naturalized species, sometimes found wild in meadows and pastures, having been long cultivated here for the sake of its fruit, the well known Caraway-seeds of the kitchen and Pharmacopœia. It is biennial, rising to the height of 1 or 2 feet, and flowering in June.

CARUM VERTICILLATUM. *Whorled Caraway.* TAB. **393.**

Leaflets with linear segments, apparently whorled. Involucra many-leaved.

Sison verticillatum, *E. B.* 395. Sium verticillatum, *Smith* II. 59. Carum verticillatum, *Lindley* 122. *Hooker ed.* 2. 126.

A rare plant, growing in salt marshes and moist pastures in the vicinity of the sea, on the western coasts of Scotland and in Wales. The root is perennial, sending up stems from a foot to a foot and a half in height, and producing its flowers in July and August. The apparently verticillate leaflets consist of a single pair, deeply divided into several capillary segments. The seeds are slightly aromatic, but the generic affinity of this plant with the preceding species seems doubtful.

GENUS CLI. BUNIUM. *Earth-nut.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, with an inflexed point. *Fruit* contracted at the side, linear-oblong, crowned with the conical immarginate base of the straight styles. *Carpella* with 5 equal, filiform, obtuse ridges, and many vittæ. *Seed* taper, convex, plane in front. General *involucrum* wanting; partial few-leaved.

Plants chiefly remarkable for their edible tuberous roots.

BUNIUM FLEXUOSUM. *Common Earth-nut.* TAB. **394.**

General involucrum of 1 to 3 leaves, deciduous. Stem tapering and flexuose at the base.

Bunium flexuosum, *E. B.* 988. *Smith* II. 54. *Hooker ed.* 2. 127. Conopodium flexuosum, *Lindley* 121. Bunium Bulbocastanum, *Curtis, Lond.* 4, 24.

A very common perennial, inhabiting woods and pastures in a gravelly soil. The tuber has a sweetish and slightly pungent taste, and is much sought after by children under the name of Earth-nut, or Earth-chestnut, from its resemblance to the latter fruit in flavour when the pungency is removed by roasting. An elegant plant, whose umbels of bright white flowers are very conspicuous through the month of June.

GENUS CLII. PIMPINELLA. *Burnet-Saxifrage.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, with an inflexed point. *Fruit* laterally contracted, ovate, crowned with the tumid base of the reflexed styles. *Carpella* with 5 equal, filiform ridges, of which the lateral ones are marginal. *Interstices* with many vittæ. *Seed* convex, plane in front. *Involucra* wanting.

The aromatic pungency of the order is possessed in a high degree by the plants of this genus. The fruit of one species, *P. Anisum*, is the well known aniseed of the shops. They are chiefly attached to dry and calcareous soils.

PIMPINELLA SAXIFRAGA. *Common Burnet-Saxifrage.* TAB. **395.**

Leaves pinnate; leaflets of the radical ones roundish, serrated; those of the stem with various linear segments.

Pimpinella Saxifraga, *E. B.* 407. *Smith* II. 89. *Lindley* 121. *Hooker ed.* 2. 127.

Very frequent in dry gravelly, or chalky pastures. A perennial, flowering in July and August. The difference occasioned in the size and division of its leaves by soil and climate, renders this one of the most variable in aspect of our native plants; but it is readily distinguishable in all instances from the following species.

PIMPINELLA MAGNA. *Great Burnet-Saxifrage.* TAB. **396.**

Leaves pinnate; leaflets all ovate, serrated, the terminal one, sometimes the lateral ones, 3-lobed.

Pimpinella magna, *E. B.* 408. *Smith* II. 90. *Lindley* 121. *Hooker ed.* 2. 127.

A perennial, much less common than the foregoing species, but found in woods and shady spots on chalk and limestone in several parts of our island. The stem rises to the height of 2 or 3 feet, producing its flowers in August and September. The root of both species is acrid and astringent, whence it is sometimes employed as a masticatory to cure the toothache and promote the secretion of saliva. Made into a decoction it removes freckles from the skin, and may be used as a gargle.

GENUS CLIII. SIUM. *Water-Parsnip.*

GEN. CHAR. *Calyx* obsolete, or 5-toothed. *Petals* obovate, with an inflexed point. *Fruit* laterally compressed or contracted and nearly double, crowned by the depressed bases of the reflexed styles. *Carpella* with 5 equal, filiform, rather blunt ridges. *Interstices* with numerous vittæ. *Seed* nearly taper. General *involucrum* various; partial many-leaved.

The British plants of this genus are aquatic. They are acrid and poisonous, especially the roots: those of a Chinese species, *Sium Sisarum*, are, however, cultivated in gardens under the name of Skirret, and furnish a wholesome article of food.

SIUM LATIFOLIUM. *Broad-leaved Water-Parsnip.* TAB. **397.**

Leaves pinnate; leaflets oblong-lanceolate, equally serrated. Umbels terminal.

Sium latifolium, *E. B.* 204. *Smith* II. 56. *Lindley* 121. *Hooker ed.* 2. 127.

One of the largest of the British *Umbelliferæ*; found in rivers, ditches, and marshes in various parts of England, but rarely in Scotland. The root is creeping and perennial, and the stem, deeply furrowed, rises to the height of 4 or 5 feet, producing its flowers in July and August. The leaflets are in number from 5 to 9 on each leaf, distant, and always very equally and neatly serrated. Such leaves as grow beneath the water have them deeply divided into linear segments.

SIUM ANGUSTIFOLIUM. *Narrow-leaved Water-Parsnip.* TAB. **398.**

Leaves pinnate; leaflets unequally lobed and serrated. Umbels pedunculate, opposite to the leaves.

Sium angustifolium, *E. B.* 139. *Smith* II. 56. *Lindley* 121. *Hooker ed.* 2. 127.

A much smaller plant than the preceding species, and further distinguished by its lateral, stalked umbels, and unequally serrated leaves. A creeping rooted perennial, frequent in ditches and rivulets, and flowering in July and August.

GENUS CLIV. BUPLEURUM. *Hare's-ear.*

GEN. CHAR. *Calyx* obsolete. *Petals* roundish, entire, with a broad, retuse, closely involute segment. *Fruit* laterally compressed, crowned by the depressed bases of the styles. *Carpella* with 5 equal winged ridges, either filiform and sharp, or very slight and obsolete, the lateral ones being marginal. *Interstices* with or without vittæ. *Seed* taper, convex, plane in front. *Involucra* various. *Flowers* yellow.

This genus in its foliage presents a remarkable exception to that of the umbelliferous plants generally, the leaves being not only invariably simple, but without the slightest tendency to indentation or serrature on the margin.

BUPLEURUM ODONTITES. *Narrow-leaved Hare's-ear.* TAB. **399.**

Partial involucrum of 5 ovate, acute, triple-veined leaves; general of 3 or 4. Branches widely spreading. Umbels all stalked. Leaves lanceolate.

Bupleurum Odontites, *E. B.* 2468. *Smith* II. 93. *Lindley* 120. *Hooker ed.* 2. 128. Odontites luteola, *Sprengel.*

This species has hitherto been met with only on rocks in the neighbourhood of Torquay in Devonshire. It is a small annual plant, flowering in July, with rigid, striated, almost linear leaves, and minute flowers, conspicuous only from their large yellow anthers. The figures on our plate represent the variations in size to which the plant is liable.

BUPLEURUM ROTUNDIFOLIUM. *Common Hare's-ear.* TAB. **400.**

General involucrum wanting. Leaves perfoliate.

Bupleurum rotundifolium, *E. B.* 99. *Smith* II. 93. *Lindley* 120. *Hooker ed.* 2. 128.

An annual plant, growing in corn-fields in a calcareous soil, but sparingly distributed. The stem rises about 18 inches, and is branched dichotomously. The leaves are oval, with a sharp point at the apex, smooth, and of a glaucous hue; their entire bases completely surround the stem, which thus appears to pass through them: and this being the most striking feature of the plant, and at the same time one far from common, procured for it the old English name of Thorow-wax, from the now obsolete verb *wax*, 'to grow'. It was formerly used as a vulnerary, and is slightly aromatic and astringent. The flowers make their appearance in June and July.

BUPLEURUM TENUISSIMUM. *Slender Hare's-ear.* TAB. **401.**

Umbels simple, alternate, of about 3 flowers. Involucrum of 5 awl-shaped leaves.

Bupleurum tenuissimum, *E. B.* 478. *Smith* II. 94. *Lindley* 120. *Hooker ed.* 2. 128. Odontites tenuissima, *Sprengel.*

The most common of our British Bupleurums, but confined to the eastern and southern coasts of England, where it abounds in muddy salt marshes, particularly such as are frequently overflowed by the sea. It is an annual plant, with slender, wiry, and very much branched stems; linear, mucronate leaves, usually triple-veined; and inconspicuous, axillary, and mostly sessile umbels of greenish yellow flowers, which make their appearance in August and September. The whole plant has a pungent, disagreeable taste and smell, and is of an acrid quality.

BUPLEURUM FALCATUM. *Falcate-leaved Hare's-ear.* TAB. **401***.

Lower leaves obovate, stalked; upper linear-lanceolate, sessile. Partial involucrum of 5 lanceolate leaves, as long as the flowers; general of 1 to 5 leaves. Stem panicled, leafy.

Bupleurum falcatum, *E. B. Supp.* 2763.

This is a perennial species, apparently known and described as a native of England by the old herbalists, but not recognised as such by modern botanists until 1832, when it was observed by Mr. Thomas Corder growing very plentifully in the neighbourhood of Chelmsford and Ongar in Essex. It seems surprising that a plant of stately habit, the stems rising from 1 to 3 or 4 feet, should have been so long overlooked, if indigenous. Under any circumstances, however, it has now an equal claim to a place in the English Flora with many plants of foreign introduction that have become naturalized. Flowers in July and August.

TRIBE IV. SESELINEÆ.

Fruit rounded, or but slightly compressed on the back; with primary ridges only.

GENUS CLV. ŒNANTHE. *Water-Dropwort.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, point inflexed. *Fruit* nearly taper, crowned by the straight styles. *Carpella* with 5, slightly convex, blunt ridges, the lateral ones being marginal and rather broader than the others. *Interstices* with single vittæ. *Seed* taper, convex. *Axis* wanting. General *involucrum* various, mostly wanting; partial many-leaved. *Flowers* white.

A tolerably well marked genus, but of variable properties, some of the species being powerful poisons, while others are capable of being employed as food, especially when cultivated.

ŒNANTHE FISTULOSA. *Common Water-Dropwort.* TAB. **402.**

Root stoloniferous. Stem-leaves pinnated, cylindrical, tubular. Umbels of few rays. General involucrum often wanting.

Œnanthe fistulosa, *E. B.* 363. *Smith* II. 68. *Lindley* 119. *Hooker ed.* 2. 128.

A very common perennial plant in ditches and slow rivulets, growing to the height of 2 or 3 feet, and flowering in July and August. Chiefly remarkable for its tubular or fistulose habit, the petioles and even the leaflets of the upper leaves being hollow like the stem. After impregnation the styles (which are permanent) become much elongated, so as to give the ripening umbellules a bur-like appearance. Reputed poisonous.

ŒNANTHE PIMPINELLOIDES. *Parsley Water-Dropwort.* TAB. **403.**

Leaflets of the radical leaves wedge-shaped, cloven; those of the stem-leaves entire, linear, very long. General involucrum of several linear leaves.

Œnanthe pimpinelloides, *E. B.* 347. *Smith* II. 69. *Lindley* 119. *Hooker ed.* 2. 128.

Not unfrequent in saline marshes, especially upon the western coast. The perennial root consists of several slender, fusiform, fleshy tubercles, intermingled with fibres; the former, which have somewhat the flavour of a filbert, are regarded as wholesome, and in some parts of the continent are even used as an article of food, being sold in the markets of Angers and other towns in France. The stem rises to the height of 2 or 3 feet, producing its flowers in July.

ŒNANTHE PEUCEDANIFOLIA. *Sulphur-weed Water-Dropwort.* TAB. **404.**

Leaflets all linear. General involucrum wanting. Knobs of the root sessile, elliptical.

Œnanthe peucedanifolia, *E. B.* 348. *Smith* II. 70. *Lindley* 120. *Hooker ed.* 2. 128.

This species seems nearly allied to the last, with which it was confounded by the early botanists, but is at once distinguished by its stouter habit, the uniformity of its leaflets, and the absence of the general involucrum. The roots have the taste of parsnips, but their wholesomeness is questionable. A perennial, flowering in June. Grows only in inland marshes and in freshwater ditches and rivulets, never in saline.

ŒNANTHE CROCATA. *Hemlock Water-Dropwort.* TAB. **405.**

Leaflets all wedge-shaped, many-cleft, nearly uniform. Fruit linear-oblong, with slender ridges.

Œnanthe crocata, *E. B.* 2313. *Smith* II. 71. *Lindley* 120. *Hooker ed.* 2. 128.

The largest of the British species, rising often to the height of 4 or 5 feet. Perennial, flowering in July. Confined in its habitats, growing almost exclusively in watery places, near large rivers, such as the Thames, on the borders of which it abounds. This is one of the most poisonous of the *Umbelliferæ*, and many fatal instances of its effects are upon record. The plant, when not in flower, is very like celery, *Apium graveolens*, and the large fleshy tubers of the root have a smell and flavour inclining to that of the parsnip. Misled by this resemblance to well known wholesome plants, about two years since a gang of convicts, working on the embankments at Woolwich, dug up a quantity of the roots, of which 17 partook as food. They were all soon after taken ill, more or less so according to the quantity they had eaten, and four of the number died. The whole herb abounds in a fœtid yellow juice, which stains the hand in gathering it, and yields by inspissation a gum-resinous extract, in which the active principle resides. When grown in a dry situation this juice disappears, or is secreted in very small quantity; under which circumstance some botanists regard it as a distinct species, the *Œ. apiifolia* of Sprengel, see Hooker ed. 2. 129., who seems to doubt whether we possess a plant according with the *Œ. crocata* of Linnæus.

ŒNANTHE PHELLANDRIUM. *Fine-leaved Water-Dropwort. Water Hemlock.* TAB. **406.**

Leaflets all uniform, with narrow, wedge-shaped, cut, divaricated segments. Fruit ovate, with broad ridges, and narrow interstices.

Phellandrium aquaticum, *Linn. E. B.* 684. Œnanthe Phellandrium, *Smith* II. 71. *Hooker ed.* 2. 129. *Lindley* 120.

A perennial, frequent in ditches and watery places, flowering in June and July. The root is spindle-shaped, thick, with whorled fibres. The stem 2 or 3 feet high, very thick below, and with many spreading branches. When the plant grows in running streams, the segments of the leaves become lengthened out in a capillary form, and the flowers are rarely produced.

GENUS CLVI. ÆTHUSA. *Fool's Parsley.*

GEN. CHAR. *Calyx* obsolete. *Petals* obcordate, with an inflexed point. *Fruit* roundish-ovate. *Carpella* with 5 elevated, thick, acutely-keeled ridges; the lateral ones marginal and a little broader than the others, bordered by a somewhat winged keel. *Interstices* with single vittæ. *Seed* semi-globose. General *involucrum* wanting; partial 3-leaved, pendulous, unilateral. *Flowers* white.

The long pendulous leaves of the partial involucrum at once distinguish this from the other genera of *Umbelliferæ.*

ÆTHUSA CYNAPIUM. *Common Fool's Parsley.* TAB. **407.**

Leaves uniform; leaflets wedge-shaped, decurrent, with lanceolate segments.

Æthusa Cynapium, *E. B.* 1192. *Smith* II. 64. *Lindley* 119. *Hooker ed.* 2. 129.

A very common weed in fields and gardens. It is an annual, rising to the height of 1 or 2 feet, and flowering in July and August. The stem is branched, smooth, and very slightly striated. Leaves smooth, twice or thrice pinnated, and of a dark, glossy green. When young it has some slight resemblance to parsley, from which, however, the pleasant aromatic scent and flavour of the latter distinguish it. The plant has an ill name, and is generally considered deleterious, a quality supposed to arise from the presence of a peculiar alkaline principle called Cynapia; but though unfit for food, its actually poisonous nature seems to rest at present upon very equivocal evidence.

GENUS CLVII. FŒNICULUM. *Fennel.*

GEN. CHAR. *Calyx* obsolete. *Petals* roundish, with a narrower, nearly square, involute apex. *Fruit* nearly taper. *Carpella* with 5 prominent, obtusely-keeled ridges, of which the lateral are marginal and a little broader than the others. *Interstices* with single vittæ. *Seed* nearly semi-taper. *Involucra* wanting. *Flowers* yellow.

A modern genus, of which the well known fennel of the gardens is the type.

FŒNICULUM VULGARE. *Common Fennel.* TAB. **408.**

Leaves biternate; leaflets linear-filiform, pinnatifid.

Anethum Fœniculum, *Linn.* *E.B.* 1208. Meum Fœniculum, *Sprengel.* *Smith* II. 85. Fœniculum vulgare, *Hooker ed.* 2. 129. *Lindley* 119.

A perennial plant, very common in chalky districts near the seacoast, but not in a truly wild state far inland. Most abundant in the Isle of Thanet, where it grows on every balk, and lines every roadside. This is the Sweet Fennel of the *cuisine*, so generally employed as a condiment for mackarel and salmon. An elegant plant, whose bright golden umbels and delicate dark foliage are usually consigned to some obscure corner of the kitchen-garden, though deserving of a place among the most favoured ornaments of the parterre. The seeds are an agreeable and useful carminative. The stem rises from 3 to 6 feet, flowering in July and August.

GENUS CLVIII. SESELI. *Meadow-Saxifrage.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point. *Fruit* oval or oblong, nearly taper, crowned by the reflexed styles. *Carpella* with 5 prominent, filiform or thick, elevated corky ridges, the lateral of which form the margin, and are often a little broader than the others. *Interstices* with single vittæ. *Seed* almost half round. General *involucrum* various; partial many-leaved. *Flowers* white.

Plants more or less aromatic, but of no important use. The only British species was formerly referred to a different genus.

SESELI LIBANOTIS. *Mountain Meadow-Saxifrage. Mountain Stone-Parsley.* TAB. **409.**

Stem furrowed. Leaves doubly pinnate, cut. Umbels hemispherical. General involucrum many-leaved.

Athamanta Libanotis, *Linn. E. B.* 138. *Smith* II. 88. Seseli Libanotis, *Lindley* 119. *Hooker ed.* 2. 130.

A rare species, met with only on elevated chalky pastures, especially on the Gogmagog hills, Cambridgeshire. The root is fusiform, perennial, crowned with the fibrous bases of the old leaves. Stem 1½ to 2 feet high. Flowers in August. The purple divaricated styles form a conspicuous feature as the fruit advances toward maturity.

GENUS CLIX. LIGUSTICUM. *Lovage.*

GEN. CHAR. *Calyx* 5-toothed, or obsolete. *Petals* obcordate, with an inflexed point. *Fruit* taper, or a little compressed at the sides. *Carpella* with 5 sharp, somewhat winged, equal ridges; the lateral ones marginal. *Interstices* with many vittæ. *Seed* nearly half-taper. General *involucrum* various; partial many-leaved. *Flowers* white.

Some of the species may be used as pot-herbs, but the most celebrated, the Lovage of our gardens, forms the type of a new genus, *Levisticum.*

LIGUSTICUM SCOTICUM. *Scottish Lovage.* TAB. **410.**

Leaves biternate, chiefly radical. General involucrum about 6-leaved. Calyx 5-toothed.

Ligusticum scoticum, *E. B.* 1207. *Smith* II. 82. *Lindley* 118. *Hooker ed.* 2. 130.

A common plant on the rocky sea-coasts of Scotland and in the North of England. Perennial, flowering in July. The root is fusiform, acrid, but aromatic and carminative. In the Island of Skye the *Ligusticum* is eaten raw as a salad, or boiled as greens, under the name of *Shunis*, but it is too acrid to please a Southern palate.

GENUS CLX. SILAUS. *Pepper-Saxifrage.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, contracted into an inflexed lobe; entire or slightly notched, either sessile, or with an appendage at the base. *Fruit* nearly taper.

Carpella with 5 sharp, somewhat winged, equal ridges, the lateral ones at the margin. *Interstices* with many vittæ. *Seed* nearly semi-taper. General *involucrum* few-leaved or wanting; partial many-leaved. *Flowers* yellowish white.

A genus recently separated from *Peucedanum*, the type of a following tribe. Scarcely differs from *Ligusticum*, except in the form of the petals.

SILAUS PRATENSIS. *Meadow Pepper-Saxifrage.* TAB. **411.**

Leaflets deeply pinnatifid, their segments linear-lanceolate, opposite, decurrent. General involucrum 1- or 2-leaved.

Peucedanum Silaus, *Linn.* *E. B.* 2142. Cnidium Silaus, *Sprengel.* *Smith* II. 91. Silaus pratensis, *Lindley* 118. *Hooker ed.* 2. 130.

This is a perennial plant, from 1 to 2 feet high, not unfrequent in moist and rather shaded meadows and pastures. The smooth, dark green foliage is fœtid when bruised, and apparently rejected by cattle, though supposed, in some parts of Norfolk, to give a bad flavour to milk and butter when the cows are fed on pastures where it grows.

GENUS CLXI. MEUM. *Spignel.*

GEN. CHAR. *Calyx* obsolete. *Petals* entire, elliptical, narrowed at each end, apex incurved. *Fruit* nearly taper. *Carpella* with 5 prominent, acutely keeled, equal ridges, the lateral ones of which are marginal. *Interstices* with many vittæ. *Seed* nearly half-taper. General *involucrum* few-leaved or wanting; partial many-leaved.

Like the last genus not very distinct from *Ligusticum*, but wanting the winged character of the ridges.

MEUM ATHAMANTICUM. *Spignel, Meu,* or *Bald-money.* TAB. **412.**

Leaflets all in numerous, deep, bristle-like segments. Involucra both general and partial.

Meum athamanticum, *E. B.* 2249. *Smith* II. 86. *Lindley* 118. *Hooker ed.* 2. 130. Athamanta Meum, *Linn.*

Native of dry mountainous pastures in the North of England, Wales, and Scotland. Perennial, flowering in June and July. A very elegant plant, remarkable for its multifid leaves and powerfully aromatic scent. It abounds in some parts of the Highlands, where the root, which is thick and fusiform, is valued for its carminative qualities. The name *Bald*, or *Bald-money*, is suggested to have been derived from its dedication to Balder, the Apollo of the North.

GENUS CLXII. CRITHMUM. *Samphire.*

GEN. CHAR. *Calyx* obsolete. *Petals* elliptical, entire, involute. *Fruit* taper. *Carpella* (spongy) with 5 elevated, sharp, slightly winged ridges, the lateral ones rather broader than the rest, and marginal. *Seed* semi-taper, free, covered with many vittæ. General and partial *involucra* many-leaved. *Flowers* greenish white.

A genus chiefly remarkable among British *Umbelliferæ* for its succulent habit.

CRITHMUM MARITIMUM. *Sea Samphire.* TAB. **413.**

Leaflets lanceolate, fleshy. Leaves of the involucra ovate.

Crithmum maritimum, *E. B.* 819. *Smith* II. 74. *Lindley* 118. *Hooker ed.* 2. 131.

Grows on rocky sea-shores beyond the reach of the waves, its long perennial roots finding support in the fissures even of the most perpendicular cliffs. Flowers in August. This is the plant whose English name (a corruption of the French *Saint Pierre*) is immortalized by Shakspeare in his beautiful though exaggerated description of Dover Cliff in *King Lear*:

> . . . . . . "Half way down
> Hangs one that gathers Sampire; dreadful trade!"

It is abundant on many parts of our southern and western coasts, and often employed as a pot-herb by the poor in the vicinity. Made into pickle, it is much esteemed for its fine aromatic flavour; but in the metropolis is now seldom met with, being supplanted by the insipid *Salicornia* or Marsh Samphire, figured in our first volume.

TRIBE V. ANGELICEÆ.

Fruit much and dorsally compressed, with a double wing on each side, with primary ridges only.

GENUS CLXIII. ANGELICA.

GEN. CHAR. *Calyx* obsolete. *Petals* elliptical-lanceolate, point inflexed. *Fruit* compressed from the back, 2-winged. *Carpella* with 3 elevated dorsal ridges, the 2 lateral ones spreading into the broad wings of the fruit. *Vittæ* various. General *involucrum* few-leaved, deciduous; partial many-leaved. *Flowers* white.

Plants of stately habit, and powerfully aromatic. The British species affect moist low habitats.

ANGELICA ARCHANGELICA. *Garden Angelica.* TAB. **414.**

Terminal leaflet lobed. Seed free, marked with numerous vittæ.

Angelica Archangelica, *E.B.* 2561. *Smith* II. 80. *Hooker ed.* 2. 131.
Archangelica officinalis, *Hoffm.* *Lindley* 117.

This species is rare in a wild state, and generally considered a naturalized foreigner. We have met with it growing with the following species on the Thames' side near Battersea, in which vicinity, however, it is cultivated by the market gardeners. It has been found near Dorking, and was first noticed as a native plant by Dr. Withering, who found it on Broadmoore, about 7 miles north-west of Birmingham. Flowers from June to September. The root is biennial, sending up in the second year a stem from 1 to 2 inches in thickness and 4 to 6 feet high. The Candied Angelica of the confectioners is the prepared stalks of this species.

ANGELICA SYLVESTRIS. *Wild Angelica.* TAB. **415.**

Leaflets equal, ovate, serrated; at the base often lobed. Interstices of the fruit with single vittæ.

Angelica sylvestris, *E. B.* 1128. *Smith* II. 81. *Lindley* 117. *Hooker ed.* 2. 131.

A common plant in watery places, such as osier-grounds, alder-groves, and elsewhere, especially near rivers. Perennial, rising from 2 to 4 feet, and flowering in July. It is aromatic, bitter, and pungent, but inferior in its qualities to the preceding; from which it is so prominently distinguished by the seeds being inseparable from the carpella, as to be regarded by some generically distinct.

TRIBE VI. PEUCEDANEÆ.

Fruit much and dorsally compressed, dilated at the margins into an even wing, not thickened at the edge, with primary ridges only.

GENUS CLXIV. PEUCEDANUM. *Hog's Fennel.*

GEN. CHAR. *Calyx* 5-toothed, or obsolete. *Petals* obovate or obcordate, with an inflexed point. *Fruit* flattened at the back, with a dilated thin margin. *Carpella* with equidistant ridges; the 3 middle ones filiform, the 2 lateral ones more obsolete, contiguous to the margin or confounded with it. *Seed* plane in front. *Interstices* with single vittæ. General *involucrum* various; partial of many leaves.

One of those Linnæan genera whose characters have never been very clearly defined. The three British species are plants of doubtful affinity.

PEUCEDANUM OFFICINALE. *Sea Hog's-Fennel. Sea Sulphur-weed.* TAB. **416.**

Leaves 5 times deeply tripartite; leaflets linear, filiform, flaccid. Leaves of the involucra few, linear, deciduous.

Peucedanum officinale, *E. B.* 1767. *Smith* II. 99. *Lindley* 117. *Hooker ed.* 2. 131.

One of the most rare among our umbelliferous plants, found hitherto only in salt marshes in Essex, Kent, and Sussex. Perennial, flowering from July to September. It rises to the height of 3 feet, the finely divided leaves and large umbels of yellow flowers rendering it very conspicuous. The whole plant is smooth, and has a strong sulphureous smell, especially the root, which yields by incision a considerable quantity of yellow juice, that dries into a fœtid resinous substance of highly stimulating, but probably dangerous qualities.

PEUCEDANUM PALUSTRE. *Marsh Hog's Fennel. Milk Parsley.* TAB. **417.**

Milky. Leaves triply pinnate; leaflets opposite, pinnatifid, with elliptic-lanceolate pointed segments. Rays of the umbel rough. Ridges of the fruit broad and obtuse.

Selinum palustre, *E. B.* 229. *Smith* II. 97. Peucedanum palustre, *Lindley* 116. *Hooker ed.* 2. 132.

A more common plant than the last, but still very locally distributed. A perennial, growing in wet meadows and bogs to the height of 4 or 5 feet, and flowering in July. Every part of the plant abounds in a bitter, fœtid juice, of the consistence of cream, which soon dries into a brown resin. Its properties are doubtful, but the root is said to be used by the Russians as we use ginger.

PEUCEDANUM OSTRUTHIUM. *Broad-leaved Hog's Fennel. Master-wort.* TAB. **418.**

Leaves twice ternate; leaflets broadly ovate, often 3-lobed, inciso-serrate; sheaths very large. General involucrum wanting.

Imperatoria Ostruthium, *Linn. E. B.* 1380. *Smith* II. 78. Peucedanum Ostruthium, *Lindley* 116. *Hooker ed.* 2. 132.

A doubtful native, sometimes found in moist pastures in Scotland and elsewhere apparently wild. The root, which is tuberous and perennial, has an acrid aromatic flavour, and was regarded as a *panacea* by the old herbalists; hence the English name Master-wort. It was formerly often cultivated in gardens as a pot-herb, but is now seldom met with, having fallen into disuse.

GENUS CLXV. PASTINACA. *Parsnep.*

GEN. CHAR. *Calyx* nearly obsolete. *Petals* roundish, entire, involute, ending in a point. *Fruit* very much compressed on the back, with a flat dilated margin. *Carpella* with very slender ridges; the 3 dorsal ones equidistant; the 2 lateral ones remote, contiguous to the dilated margin. *Interstices* with single filiform vittæ. *Seed* flat. *Involucra* wanting, or of few leaves. *Flowers* yellow.

Distinguished from *Heracleum* by the filiform vittæ, and from the rest of the tribe by the remote lateral ridges.

PASTINACA SATIVA. *Common Parsnep.* TAB. **419**.

Leaves simply pinnate; downy beneath.

Pastinaca sativa, *E. B.* 556. *Smith* II. 101. *Lindley* 116. *Hooker ed.* 2. 132.

Common on the borders of fields and road-sides in chalky and calcareous soils, rare in others. The garden parsnep is a variety of this, in which the biennial, fusiform root has been enlarged by culture. The contrast which it presents in this state to that of the original or wild plant is sometimes enormous, and affords a striking instance of the abundance which nature offers to reward the industry of man. A sort of the common parsnep, which is very extensively cultivated in our Norman islands under the name of Coquaine, has roots from 3 to 4 feet in length and 6 to 8 inches in girth: these are chiefly employed as fodder for cattle, but the quantity of sugar and farinaceous matter that parsneps contain renders them one of the most nutritious articles of human sustenance which the garden affords. Flowers in July.

GENUS CLXVI. HERACLEUM. *Cow-Parsnep.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; outer ones often radiant and bifid. *Fruit* very much dorsally compressed, with a broad flat margin. *Carpella* with very slender ridges; the 3 dorsal ones equidistant; the 2 lateral ones remote, contiguous to the margin. *Interstices* with single club-shaped vittæ. *Seed* flat. General *involucrum* deciduous; partial many-leaved. *Flowers* white.

The clavate vittæ distinguish this genus from *Pastinaca*, which it resembles in one of the most remarkable features, the remoteness of the lateral ridges.

HERACLEUM SPHONDYLIUM. *Common Cow-Parsnep. Hogweed.* TAB. **420**.

Leaves pinnate; leaflets pinnatifid, cut, and serrated. Petals unequal. Fruit smooth.

Heracleum Sphondylium, *E. B.* 939. *Smith* II. 102. *Lindley* 116. *Hooker ed.* 2. 132.

A rough, coarse-looking, but stately biennial plant, growing to the height of 4 or 5 feet. Common everywhere in fields, woods, hedges, and on road-sides. Its large and handsome umbels are very conspicuous through the month of July. Though generally regarded here as a troublesome weed, the *Sphondylium* is a favourite food of cows, swine, and rabbits; and its young shoots and leaf-stalks are considered a delicate vegetable by the Russians and Poles, who likewise prepare a kind of beer and distil a spirit from the stalks.

Heracleum angustifolium of *Fl. Brit.* is now known to be only a variety of *Sphondylium*, with leaves more deeply cut and narrower lobes.

TRIBE VII. TORDYLINEÆ.

Fruit much and dorsally compressed, dilated at the margins into a wing, which is knotted, or waved and thickened at the edge, with primary ridges only.

GENUS CLXVII. TORDYLIUM. *Hart-wort.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; outer ones radiant, bifid. *Fruit* dorsally compressed, surrounded by an accessory, thickened, crenated margin. *Carpella* with very slender ridges; the 3 dorsal ones equidistant, the 2 lateral ones contiguous to the thickened margin. *Interstices* with 1 or 3 vittæ. *Seed* flat. General and partial *involucra* many-leaved.

This genus, which in its fullest extent, perhaps, constitutes the only representative of its tribe, consists of annual plants of no remarkable qualities. The two British species are among the rarities of the order, and probably emigrants from a milder climate.

TORDYLIUM OFFICINALE. *Small Hart-wort.* TAB. **421**.

Partial involucrum about as long as the flowers. Leaflets ovate, cut, crenate. Radiant petals in pairs, with very unequal lobes. Thickened margin of the fruit elegantly notched or beaded.

Tordylium officinale, *E. B.* 2440. *Smith* II. 114. *Hooker ed.* 2. 133.
Condylocarpus officinalis, *Hoffman*. *Lindley* 115.

Found in Ray's time in the neighbourhood of Isleworth, but a very doubtful native. A very beautiful plant when in flower, prominently distinguished from the next species by the extremely disproportionate size of the outer lobes of the 2 radiant petals, and deeply crenated margins of the fruit. About a foot high. Flowers in June and July.

TORDYLIUM MAXIMUM. *Great Hart-wort.* TAB. **422**.

Leaflets lanceolate, deeply serrated, and notched. Partial involucrum shorter than the umbel. Radiant petals with equal lobes. Fruit rough with appressed hairs; thickened margin indistinctly crenated.

Tordylium maximum, *E. B.* 1173. *Smith* II. 105. *Lindley* 115. *Hooker ed.* 2. 133.

This is a taller plant than the *T. officinale*, with small rose-coloured flowers, which are produced in June and July. The only certain habitat is in the neighbourhood of Oxford, on the north side of which it has been noticed for more than a century past. It has likewise been found on waste ground near London and Eton, a probable wanderer from the custody of the botanist.

TRIBE VIII. DAUCINEÆ.

Fruit dorsally compressed, or somewhat rounded, with both primary and secondary ridges; the lateral primary ridges on the inner face of the *carpella*, the secondary ones prominent and prickly; the prickles sometimes uniting into a sort of wing.

GENUS CLXVIII. DAUCUS. *Carrot.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, point inflexed: the outer often radiant and deeply bifid. *Fruit* compressed at the back. *Carpella* with 5 filiform and bristly primary ridges, of which 3 are dorsal, the 2 lateral ones on the inner face; the 4 secondary ridges equal, more prominent, with a single row of prickles. *Interstices* with single vittæ, which are under the secondary ridges. *Seed* plane in front. General and partial *involucra* many-leaved.

Biennial or annual plants, with white or pink flowers and, under cultivation, esculent roots.

DAUCUS CAROTA. *Wild Carrot. Bird's-nest.* TAB. **423.**

Bristles of the fruit slender. Leaflets pinnatifid, with linear-lanceolate, acute segments. Umbels with a solitary, coloured, abortive flower in the centre; when in fruit concave.

Daucus Carota, *E. B.* 1174. *Smith* II. 39. *Lindley* 113. *Hooker ed.* 2. 133.

Not an unfrequent plant on the borders of fields, and in dry pastures; but especially abundant upon calcareous or chalky soils. A biennial, flowering in July. The Garden Carrot originated from this species, and affords an additional instance to that of the Parsnep of the effects of cultivation upon vegetables.

DAUCUS MARITIMUS. *Sea-side Carrot.* TAB. **424.**

Bristles of the fruit flattened. Leaflets pinnatifid, fleshy; segments rounded. Umbels convex when in fruit.

Daucus maritimus, *E. B.* 2560. *Smith* II. 40. *Lindley* 113. *Hooker ed.* 2. 133.

Considered by many only a variety of the preceding species, from which the flattened bristles of the fruit, ultimate convexity of the umbels, broader and more fleshy leaves, and the constant absence of the coloured central flower, prominently distinguish it. A biennial, growing upon several parts of the southern coast, especially Cornwall and Kent, and flowering in July and August.

The seeds, which in the preceding tribes are plane in front, are in the remainder more or less curved or furrowed.

TRIBE IX. CAUCALINEÆ.

Fruit contracted at the side or rounded, with both primary and secondary ridges. The lateral primary ridges on the inner face of the carpella: all the secondary ones with prickles or setæ. *Seed* involute or inflexed at the margin.

GENUS CLXIX. CAUCALIS. *Bur-Parsley.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; outer ones radiant and deeply bifid. *Fruit* laterally compressed. *Carpella* with 5 filiform primary ridges, of which the 3 dorsal have from 1 to 3 rows of bristles or prickles; the 2 lateral ones are on the inner face; the 4 secondary ridges, usually more prominent, armed with one or two rows of prickles. *Interstices* with single vittæ beneath the secondary ridges. *Seed* involute. General and partial *involucra* many-leaved.

Plants all annual, with white or pink flowers, of no known utility. *C. latifolia*, however, is remarkable as being one of the most beautiful of our native *Umbelliferæ*.

CAUCALIS DAUCOIDES. *Small Bur-Parsley.* TAB. **425.**

General umbels of about 3 rays, without involucrum; partial ones usually ripening 3 fruits, with a 3-leaved involucrum. Leaves twice or thrice pinnate; segments pinnatifid.

Caucalis daucoides, *E. B.* 197. *Smith* II. 41. *Lindley* 114. *Hooker ed.* 2. 133.

A very local plant in this country, growing in corn-fields on a chalky soil; plentiful in Cambridgeshire. Flowers in June.

CAUCALIS LATIFOLIA. *Great Bur-Parsley.* TAB. **426.**

General umbels of about 3 rays, with a membranous involucrum; partial ones ripening usually 5 fruits. Leaves pinnate; leaflets deeply serrated, decurrent; those of the lower leaves pinnatifid and serrated.

Caucalis latifolia, *E. B.* 198. *Smith* II. 41. *Lindley* 114. *Hooker ed.* 2. 134. Tordylium latifolium, *Linn.*

Less frequent than the last species in similar habitats, but abundant on the dry fields of Cambridgeshire, where it makes a conspicuous appearance in the month of July, its flowering season.

GENUS CLXX. TORILIS. *Hedge-Parsley.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; the outer ones radiant and bifid. *Fruit* contracted at the side. *Carpella* with 5 *primary* bristly ridges, of which the 3 middle ones are dorsal, and the 2 lateral ones on the inner face; the *secondary* ridges obliterated by the multitude of prickles which cover the interstices. *Interstices* with single vittæ under the prickles. *Seed* involute at the margin. General *involucrum* variable; partial many-leaved. *Flowers* white or pink.

Troublesome weeds, of no sensible properties or known utility. The obliteration of the secondary ridges forms the chief distinction between this genus and the last, with which it was formerly united.

TORILIS ANTHRISCUS. *Upright Hedge-Parsley.* TAB. **427.**

Stem erect, branched. Leaves bipinnate; leaflets inciso-serrate. Umbels terminal. General involucrum many-leaved.

Caucalis Anthriscus, *E. B.* 987. Torilis Anthriscus, *Smith* II. 48. *Hooker ed.* 2. 134. *Lindley* 114.

An annual plant very common in cultivated ground, and elsewhere in hedges and the borders of fields. It rises 2 or 3 feet in height, and flowers in July.

TORILIS INFESTA. *Spreading Hedge-Parsley.* TAB. **428.**

Stem erect, with divaricated branches. Leaves pinnate; leaflets pinnatifid, inciso-serrate. Umbels terminal. General involucrum of 1 leaf, or wanting.

Caucalis infesta, *E. B.* 1314. Torilis infesta, *Smith* II. 43. *Hooker ed.* 2. 134. *Lindley* 114.

More common than the last, in fields and by way-sides. Readily distinguished from it by the spreading branches, elongated terminal leaflets, and paucity of general involucrum. Annual, flowering in July.

TORILIS NODOSA. *Knotted Hedge-Parsley.* TAB. **429.**

Stem prostrate. Umbels lateral, simple, subsessile. Fruit partly tuberculated.

Caucalis nodosa, *E. B.* 199. Torilis nodosa, *Smith* II. 44. *Hooker ed.* 2. 134. *Lindley* 114.

Common on banks and about the borders of fields, especially on dry, gravelly, and calcareous soils. Like the rest of the genus it is annual. Flowers from May to July. The external fruits only of the umbel are furnished with bristles, which are longest on the outside; the inner ones have them generally reduced to the form of tubercles.

TRIBE X. SCANDICINEÆ.

Fruit compressed at the side, elongated, and generally beaked, with primary ridges only. *Seed* involute at the margin, or deeply cloven in front.

GENUS CLXXI. SCANDIX. *Shepherd's Needle.*

GEN. CHAR. *Calyx* obsolete. *Petals* obovate, inflexed at the apex. *Fruit* laterally compressed, with a very long beak. *Carpella* with 5 obtuse, equal ridges, the lateral ones forming the margin. *Interstices* without vittæ, or they are nearly obsolete. *Seed* taper, with a deep furrow in front. General *involucrum* wanting, or few-leaved; partial of 5 to 7 leaves.

A genus of annual plants with white flowers. The only British species was formerly used as a potherb.

SCANDIX PECTEN-VENERIS. *Shepherd's Needle. Venus's Comb.* TAB. **430**.

Fruit nearly smooth, with a bristly-edged beak. Leaflets cut into many linear segments.

Scandix Pecten-Veneris, *E. B.* 1397. *Smith* II. 48. *Lindley* 125. *Hooker ed.* 2. 134.

A common weed in cultivated ground, especially in corn-fields, flowering from June to August. The great length of the beak renders it when in fruit one of the most remarkable plants of the order.

GENUS CLXXII. ANTHRISCUS. *Beaked-Parsley.*

GEN. CHAR. *Calyx* obsolete. *Petals* obcordate, with a generally short, inflexed point. *Fruit* contracted at the side, beaked. *Carpella* sub-taper, without ridges, the beak only having 5. *Seed* taper, convex, deeply furrowed in front. General *involucrum* wanting; partial many-leaved. *Flowers* white.

Distinguished from *Scandix* by the obsolete ridges and shorter beak of the fruit.

ANTHRISCUS SYLVESTRIS. *Wild Beaked-Parsley. Wild Chervil. Cow-weed. Cow-Parsley.* TAB. **431.**

Umbels terminal, stalked. Leaves of the involucra ovate, membranous. Stem striated, nearly smooth, slightly swelling below each joint. Leaves tripinnate; leaflets ovate, pinnatifid.

Chærophyllum sylvestre, *E. B.* 752. *Smith* II. 48. Anthriscus sylvestris, *Lindley* 124. *Hooker ed.* 2. 135.

The earliest of all our umbelliferous plants, flowering from the middle of April to the end of May. A large, handsome, perennial species, rising 3 or 4 feet, frequent under hedges, and on the borders of fields in rich soils, of the degree of whose fertility its greater or less luxuriance may be considered indicative. No fields are more productive than those whose boundaries are decorated in the prime of spring with the blossoms of the Wild Chervil. The whole herb has a sweetish and somewhat aromatic flavour and smell, and in some parts of the kingdom is used as a potherb in times of scarcity. Cows and rabbits devour it with avidity. The roots eaten as parsneps have proved poisonous.

ANTHRISCUS CEREFOLIUM. *Garden Beaked-Parsley. Garden Chervil.* TAB. **432.**

Umbels sessile, lateral. Leaves of the involucra lanceolate. Leaves bipinnate; leaflets pinnatifid.

Scandix Cerefolium, *Linn.* *E. B.* 1268. Chærophyllum sativum, *Smith* II. 48. Anthriscus Cerefolium, *Lindley* 124. *Hooker ed.* 2. 135.

An annual plant, flowering in June. Occasionally met with in waste ground and under hedges, though probably at first a truant from the gardens, in which it is sometimes cultivated as an ingredient for soups and salads. The stem is slender, from 1½ to 2 feet high. Leaves pale, glossy green, very delicate in their texture, and of a sweetish aromatic flavour. General umbels of 3 to 5 rays, pubescent.

ANTHRISCUS VULGARIS. *Common Beaked-Parsley.* TAB. **433.**

Fruit ovate, hispid, about twice as long as the beak. Leaves triply pinnate; segments pinnatifid, obtuse.

Scandix Anthriscus, *Linn.* *E. B.* 818. Anthriscus vulgaris, *Smith* II. 45. *Lindley* 124. *Hooker ed.* 2. 135.

Common in many parts of the kingdom, but almost exclusively so in the vicinity of large towns, where after a shower of rain the rich green of its highly compound foliage must attract the passer's gaze upon every bank and road-side. It is an annual, varying greatly in stature, from 6 inches to 2 or 3 feet. Flowers early in May.

GENUS CLXXIII. CHÆROPHYLLUM. *Chervil.*

GEN. CHAR *Calyx* obsolete. *Petals* obcordate, with an inflexed point. *Fruit* compressed or contracted at the sides. *Carpella* with 5 obtuse, equal ridges, of which the lateral ones form the margin, with a deep furrow on the inner face of each. *Interstices* with single vittæ. *Seed* taper, convex, its transverse section lunate. General *involucrum* wanting or few-leaved; partial many-leaved.

The plants of this genus seem nearly allied to both *Anthriscus* and *Myrrhis*, but are distinguished from the former by the very evident ridges of their fruit, and from the latter by the presence of vittæ and undivided pericarpium.

CHÆROPHYLLUM TEMULENTUM. *Rough Chervil.* TAB. **434.**

Fruit nearly smooth. Partial involucrum reflexed. Stem rough with spreading hairs, swollen beneath each joint (spotted with purple).

Chærophyllum temulentum, *E. B.* 1521. *Lindley* 125. *Hooker ed.* 2. 135. Myrrhis temulenta, *Smith* II. 51.

A very common plant in shaded spots and under hedges. The root is annual or biennial, and the stem rises 2 or 3 feet high, producing flowers in June and July, the umbels of which droop before expansion. The herb has a sweetish aromatic flavour, but is considered deleterious, as the specific name, *temulentum*, denoting a narcotic or intoxicating quality, implies.

CHÆROPHYLLUM AUREUM. *Tawny-seeded Chervil.* TAB. **435.**

Fruit nearly smooth, coloured. Stem angular, hairy, slightly swelling below the joints. Leaves tripinnate; leaflets sharply pinnatifid, pointed.

Chærophyllum aureum, *E. B.* 2103. *Lindley* 125. *Hooker ed.* 2. 135. Myrrhis aurea, *Smith* II. 52.

This species has hitherto been found only on the borders of fields in Scotland, as near Corstorphine, Edinburgh, and between Arbroath and Montrose. It is a perennial, about 3 feet in height, flowering in June. The whole plant is aromatic, but sufficiently distinct from the following species.

CHÆROPHYLLUM AROMATICUM. *Broad-leaved Chervil.* TAB. **435*.**

Fruit smooth. Leaves subternate, bipinnate; leaflets ovate, acute, serrated, undivided.

Chærophyllum aromaticum, *E. B. Supp.* 2636. *Lindley* 125. *Hooker ed.* 2. 136. Myrrhis aromatica, *Sprengel. Smith* II. 52.

A native of Germany, and rare in this country, having only been found in Scotland near Guthrie, on the road-side leading from Forfar to Arbroath. A perennial, growing to the height of 2 or 3 feet, and flowering in June. Like the preceding, it may be regarded as an imported species.

Genus CLXXIV. MYRRHIS. *Cicely.*

Gen. Char. *Calyx* obsolete. *Petals* obcordate, with an inflexed point. *Fruit* compressed laterally. *Pericarpium* of 2 membranes; the external one hollow, with 5 equal, sharply carinated ridges; the internal one adhering closely to the seed. *Seed* involute at the sides. No vittæ. General *involucrum* wanting; partial many-leaved. *Flowers* white.

Differs from the rest of the tribe in the peculiar structure of the fruit. Only a single species is at present referred to it.

MYRRHIS odorata. *Sweet Cicely.* Tab. **436**.

Fruit large, with very sharp, elevated ribs.

Scandix odorata, *Linn.* *E. B.* 697. Myrrhis odorata, *Smith* II. 50. *Lindley* 125. *Hooker ed.* 2. 136.

A very elegant perennial species and highly aromatic. Found, apparently wild, in great abundance in the mountainous districts of the North of England and Wales, and in the Lowlands of Scotland, but generally in orchards and pastures near houses, its fragrant aromatic seeds making a part of the humble luxuries and simple medicines of the mountain cottager. Height about 2 feet, with large, pale green, triply pinnated leaves, their segments variously cut and pinnatifid. Flowers in May and June. The central flowers of the inner umbellules are usually abortive.

Tribe XI. SMYRNIEÆ.

Fruit turgid, compressed or contracted at the sides; with primary ridges only. *Seed* with an involute margin, or with a deep cleft in front.

Genus CLXXV. ECHINOPHORA. *Prickly Samphire.*

Gen. Char. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; the external often larger than the rest and bifid. *Flowers* of the ray sterile, on long stalks; of the centre fertile, solitary. *Fruit* ovate, sub-taper, included in the receptacle, with a projecting beak. *Carpella* with 5 equal, depressed, waved and striated ridges. *Interstices* with single vittæ, which are covered by a cobweb-like membrane. General and partial *involucra* many-leaved.

The very peculiar structure and situation of the fruit distinguish this from all the other genera of *Umbelliferæ.*

ECHINOPHORA SPINOSA. *Sea Prickly Samphire. Sea-Parsnep.* TAB. **437.**

Leaves bipinnatifid, with subulate, spinous segments. Involucra entire, spinous.

Echinophora spinosa, *E. B.* 2413. *Smith* II. 38. *Lindley* 126. *Hooker ed.* 2. 136.

A perennial plant, growing only on sandy sea-coasts, and flowering in July. A doubtful native at present, though it appears to have been found formerly on the shores of Lancashire and Kent. The roots are said to taste like parsneps, with some saltness, and a stimulating quality. The stem is so bushy and beset with spinous leaves as to be nearly inaccessible. The fruit is solitary, owing to the constant abortion of one of the two carpella, and is singularly lodged in the fleshy centre of the partial umbel.

GENUS CLXXVI. CONIUM. *Hemlock.*

GEN. CHAR. *Calyx* obsolete. *Petals* obcordate, with an inflexed point. *Fruit* compressed at the side, ovate. *Carpella* with 5 prominent, equal, waved, crenated ridges, of which the lateral ones are marginal. *Interstices* without vittæ, but with many striæ. *Seed* with a deep narrow groove in front. General *involucrum* few-leaved; partial 3-leaved, unilateral. *Flowers* white.

Plants of very opposite qualities are included by some authors in this genus. The highly narcotic and poisonous properties of the European species form a remarkable contrast to those of the *C. Arracacha* and *moschatum* of South America, whose roots constitute a large proportion of the winter food of the inhabitants of some districts. The waved or crenated ridges of the fruit distinguish *Conium* from the other British genera of the section.

CONIUM MACULATUM. *Spotted Hemlock. Common Hemlock.* TAB. **438.**

Stem much branched, polished, and spotted. Leaves tripinnate, with acute, sharply notched segments.

Conium maculatum, *E. B.* 1191. *Smith* II. 65. *Lindley* 126. *Hooker ed.* 2. 136.

The Common Hemlock is a biennial plant, frequent on waste grounds and under hedges and thickets, varying in height from 2 to 3 or 5 feet, according as the situation in which it grows is more or less moist or shaded. Its glossy spotted stem, deep green shining leaves, and strong fœtid smell when bruised, render it difficult to mistake this for any other species of the order. Although one of the most powerful of the vegetable poisons indigenous to this country, its flavour is far too nauseous to admit of its being swallowed in any dangerous quantity by one ignorant of its nature. As a medicine the *Conium* stands in high repute for its sedative and alterative properties, and the effect which it has in lowering the pulse renders it a valuable remedy in certain cases, though too dangerous in its misuse to be administered by any other than the experienced practitioner. Flowers in June and July.

GENUS CLXXVII. PHYSOSPERMUM. *Bladder-Seed.*

GEN. CHAR. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point. *Fruit* contracted laterally, double. *Carpella* roundish, with 5 finely filiform, equal ridges, of which the lateral are placed within the margin. *Interstices* with single vittæ. *Seed* involute, lunate. General and partial *involucra* many-leaved. *Flowers* white.

The seed lying loose in the cavity of the carpellum is the origin of the name *Physospermum*, or *Bladder-seed*, applied to this genus, which was by the earlier botanists confounded with *Ligusticum.*

PHYSOSPERMUM CORNUBIENSE. *Cornish Bladder-seed.* TAB. **439.**

Radical leaves twice or thrice ternate, cut; stem leaves ternate, lanceolate, entire.

Ligusticum cornubiense, *Linn.* *E. B.* 683. *Smith* II. 82. Physospermum commutatum, *Sprengel.* *Lindley* 126. Physospermum cornubiense, *Hooker ed.* 2. 137.

This species, the only known representative of its genus, and one of the rarest of British plants, is found only in the fields about Bodmin in Cornwall, to which contracted corner of the earth it was for a long period considered to be peculiar. It is a perennial, rising from 1½ to 2 feet, and flowering in July.

GENUS CLXXVIII. SMYRNIUM. *Alexanders.*

GEN. CHAR. *Calyx* obsolete. *Petals* lanceolate or elliptical, entire, with a long inflexed point. *Fruit* laterally contracted, double. *Carpella* roundish reniform, with 3 prominent and sharp dorsal ridges; the 2 lateral ones marginal, obscure. *Interstices* with many vittæ. *Seed* involute. *Involucra* various.

Plants of no remarkable properties. Some of them are employed as potherbs.

SMYRNIUM Olusatrum. *Common Alexanders.* Tab. **440.**

Stem-leaves ternate, petiolate, serrate.

Smyrnium Olusatrum, *E. B.* 230. *Smith* II. 76. *Lindley* 126. *Hooker ed.* 2. 137.

Found near the sea-coast in many parts of the kingdom, and inland in the neighbourhood of towns, having been formerly cultivated as a salad and potherb, for which purposes it has long been superseded by the more agreeable, because less strong and bitter, Celery. It is a biennial, flowering in May and June, throwing up a very stout stem 3 or 4 feet in height. The foliage is broad, of a bright yellow green colour and pungent flavour. The specific name, Olus-atrum, or Black Potherb, was probably bestowed upon it in allusion to the black or dark hue of the fruit when ripe.

Tribe XII. CORIANDREÆ.

Fruit globose or double, with the primary and secondary ridges depressed or wingless, often nearly obsolete. *Seed* curved inward from the base and apex, or hollowed in front.

Genus CLXXIX. CORIANDRUM. *Coriander.*

Gen. Char. *Calyx* 5-toothed. *Petals* obcordate, with an inflexed point; the outer ones radiant and bifid. *Fruit* globose. *Carpella* with the 5 primary ridges depressed and wavy; the 2 lateral ones placed in front of an accessory margin; the 4 secondary ridges more prominent and carinate. *Interstices* without vittæ; the inner face of the carpellum with 2 vittæ. *Seed* hollowed in front, covered by a loose membrane. General *involucrum* wanting; partial unilateral. *Flowers* white.

The carpella in this genus cohere so as to be with difficulty separated.

CORIANDRUM sativum. *Common Coriander.* Tab. **441.**

The 2 hemispherical carpella combined in a uniform globe. Leaflets of the lower leaves wedge-shaped.

Coriandrum sativum, *E.B.* 67. *Smith* II. 67. *Lindley* 115. *Hooker ed.* 2. 137.

An annual, flowering in June. Originally from the South of Europe, but having been long cultivated in this country as a medicinal plant it has become naturalized, and is occasionally met with in fields and waste places, especially about Ipswich. The aromatic flavour of the seeds is well known from their use in confectionery, but every other part of the herb when bruised emits an intolerably fœtid odour; whence the application of the generic name, derived from *Coris*, 'a bug.'

ORDER III. TRIGYNIA.

GENUS CLXXX. VIBURNUM. *Guelder-rose.*

Nat. Order. CAPRIFOLIACEÆ.

GEN. CHAR. *Calyx* superior, 5-cleft. *Corolla* monopetalous, 5-lobed. *Berry* inferior, usually 1-seeded.

Shrubs or small trees, with white, cymose inflorescence and opposite, simple leaves. The British species are deciduous.

VIBURNUM LANTANA. *Mealy Guelder-rose. Way-faring tree.* TAB. **442.**

Leaves heart-shaped, serrated, veiny; downy beneath.

Viburnum Lantana, *E. B.* 331. *Smith* II. 107. *Lindley* 132. *Hooker ed.* 2. 143. *ed.* 3. 146.

Common in hedges and thickets, though chiefly in a chalky or calcareous soil. It is a thickly branched shrub or small tree, growing generally to a larger size in the North of England than in the South. The young shoots, the flower-stems, and the under surface of the leaves are thickly clothed with stellated tufts of down, communicating a mealy appearance, whence the vulgar name of Meal-tree. It flowers in June. The fruit, a compressed berry, at first of a yellowish hue, soon becomes red, and when quite ripe is of a purplish black. Pallas informs us that the young shoots of this species are greatly esteemed in the Crimea for the tubes of tobacco-pipes.

VIBURNUM OPULUS. *Common Guelder-rose. Water Elder.* TAB. **443.**

Leaves 3-lobed, serrated. Petioles beset with glands.

Viburnum Opulus, *E. B.* 332. *Smith* II. 107. *Lindley* 132. *Hooker ed.* 2. 143. *ed.* 3. 146.

A large, smooth, bushy shrub or small tree, common in moist woods and hedges, and flowering early in June. The marginal flowers in each cyme are barren, and consist of a large, irregular, 5-lobed petal, without organs of fructification; those of the centre are smaller, regular, and furnished with stamens and pistils. The cymes, erect when in flower, droop with the weight of the fruit as it advances towards maturity. The berries are globular, succulent, and of a reddish purple hue when ripe. The Guelder-rose of the gardens, whose snowy balls contrast so beautifully with the Lilacs and Laburnums of the early summer months, is a variety of this, in which the figure of the cyme is altered, owing to the central flowers being abortive and dilating their petals like those of the circumference.

GENUS CLXXXI. SAMBUCUS. *Elder.*

Nat. Order. CAPRIFOLIACEÆ.

GEN. CHAR. *Calyx* superior, 5-cleft. *Corolla* rotate, 5-lobed. *Berry* 3- or 4-seeded.

Deciduous shrubs or small trees, seldom herbaceous, with pinnated, opposite leaves, and white or pinkish, cymose inflorescence. Few other plants will flourish beneath their shade.

SAMBUCUS EBULUS. *Dwarf Elder. Danewort.* TAB. **444**.

Cymes with 3 principal branches. Leaflets lanceolate; stipules foliaceous. Stem herbaceous.

Sambucus Ebulus, *E. B.* 475. *Smith* II. 108. *Lindley* 132. *Hooker ed.* 2. 143. *ed.* 3. 146.

Not a common plant, but where met with usually very abundant, rapidly extending by its creeping roots, which are difficult to eradicate. Waste grounds and road-sides are its favourite habitats. The stem is angular and furrowed, 2 or 3 feet high, terminating in the inflorescence, which is developed in July. Flowers dull pink or purplish, with purple anthers. Berries globular, black. The whole plant has a fœtid smell and is violently purgative. No cattle will eat it.

SAMBUCUS NIGRA. *Common Elder.* TAB. **445**.

Cymes with 5 principal branches. Leaflets ovate; stipules obsolete. Stem arboreous.

Sambucus nigra, *E. B.* 476. *Smith* II. 109. *Lindley* 132. *Hooker ed.* 2. 143. *ed.* 3. 147.

A small bushy tree common in hedges, coppices, and woods, flowering in June, and ripening its fruit copiously in September. The Common Elder is universally cultivated throughout England for the sake of its berries, which are made into wine, and boiled into a rob, much used in the country as a remedy in sore throats and coughs. The tree indeed is a magazine of physic to the rustic practitioner, an ointment being prepared from the green inner bark, which is likewise a strong cathartic, and an infusion of the flowers used externally as a fomentation, and internally to promote expectoration in pleurisy. The uses of the Elder are not confined to medicine; the wood is sufficiently hard for the turner; its light pith, which is abundant in the young shoots, is cut into balls and figures for the electrician; while the neglected leaves if strewed among our growing vegetables would preserve many from the attacks of the insects that destroy them. The berries are usually purplish-black, but sometimes white. A variety is occasionally met with, the *Parsley-leaved Elder* of our plantations, with the leaflets deeply laciniated.

GENUS CLXXXII. STAPHYLEA. *Bladder-nut.*

Nat. Order. STAPHYLEACEÆ.

GEN. CHAR. *Calyx* inferior, 5-parted, with an urceolate disk. *Petals* 5. *Styles* 2 or 3, united or separate. *Fruit* inflated, membranous, 2- or 3-celled.

Small shrubs, with opposite, pinnated, stipulate leaves, and white or yellowish flowers in terminal, somewhat panicled racemes.

STAPHYLEA PINNATA. *Common Bladder-nut.* TAB. **446.**

Leaves pinnate; petioles without glands. Styles 2 only.
Staphylea pinnata, *E. B.* 1560. *Smith* II. 111. *Lindley* 75. *Hooker ed.* 2. 144. *ed.* 3. 147.

A handsome shrub frequent in gardens, but a doubtful native, though long since observed apparently wild about Pontefract in Yorkshire, and likewise near Ashford in Kent. Stem 5 or 6 feet high, with divaricated branches. Leaves with 5 or 7 ovate, suddenly acuminated, finely serrated leaflets. Flowers in May and June. Chiefly remarkable for its large, obovate, bladder-like fruits.

GENUS CLXXXIII. TAMARIX. *Tamarisk.*

Nat. Order. TAMARISCINEÆ.

GEN. CHAR. *Calyx* inferior, 5-parted, persistent. *Petals* 5. *Stamens* 5 or 10. *Stigmas* sessile, feathery. *Capsule* 1-celled, 3-valved, many-seeded. *Seeds* pappose, hairs simple.

Shrubs, with minute, alternate, entire, scale-like leaves, and pink racemose or spiked inflorescence.

TAMARIX GALLICA. *Common Tamarisk.* TAB. **447.**

Spikes lateral, slender, numerous. Leaves appressed, acute, spurred.
Tamarix gallica, *E. B.* 1318. *Smith* II. 112. *Lindley* 62. *Hooker ed.* 2. 144. *ed.* 3. 147.

A deciduous, erect, slender-branched shrub, with glaucous leaves and upright spikes of small pink flowers, which are produced about July. Plentiful on the rocks, cliffs, and sandy shores of Cornwall, and likewise found in Sussex and Hampshire, though supposed by some to have been introduced from France. Its winged seeds are certainly favourable to migration. The elegance of its habit has rendered it a favourite in our shrubberies.

GENUS CLXXXIV. CORRIGIOLA. *Strapwort.*

Nat. Order. ILLECEBREÆ.

GEN. CHAR. *Calyx* inferior, 5-leaved, permanent. *Petals* 5, about equal to the calyx. *Fruit* indehiscent, 1-seeded, covered by the calyx.

Insignificant weeds, with procumbent stems, alternate leaves, and minute flowers in terminal racemes.

CORRIGIOLA LITTORALIS. *Sand Strapwort.* TAB. **448.**

Flowering branches leafy.
Corrigiola littoralis, *E. B.* 668. *Smith* II. 113. *Lindley* 60. *Hooker ed.* 2. 144. *ed.* 3. 147.

An annual plant, flowering in July and August. Confined to the south-western coast of England, where it seems of rare occurrence, having only been found on Slapham-sands, near the Star-point, Devonshire, and on the beach at Helston, Cornwall. The slender stems spread in a circle from the root. The leaves are obtusely linear, glaucous, and somewhat fleshy, with minute, membranaceous, white stipulæ. Flowers minute, pearly, crowded into corymbus-like racemes terminating the branches.

ORDER IV. TETRAGYNIA.

GENUS CLXXXV. PARNASSIA. *Grass of Parnassus.*

Nat. Order. DROSERACEÆ.

GEN. CHAR. *Calyx* deeply 5-cleft, inferior. *Petals* 5. *Disk* of 5 heart-shaped nectaries, fringed with globular-headed filaments. *Capsule* 1-celled, 4-valved, with parietal placentæ and numerous seeds.

Elegant herbaceous plants, with perennial fibrous roots, entire leaves, and curious white flowers. Natives of peat-bogs and morasses, chiefly in alpine districts.

PARNASSIA PALUSTRIS. *Common Grass of Parnassus.* TAB. **449.**

Radical leaves cordate, petiolate; cauline one stem-clasping. Bristles of the nectaries numerous.
Parnassia palustris, *E. B.* 82. *Smith* II. 114. *Lindley* 67. *Hooker ed.* 2. 144. *ed.* 3. 147.

One of the most interesting of our native plants on account of the singular structure of the flower. It is not an unfrequent inhabitant of spongy bogs in many parts of the kingdom, but especially in the mountainous districts of Wales and the northern counties. The stems are angular, from 3 to 10 inches high, each supporting a single large flower, and bearing midway a single sessile leaf. Leaves otherwise radical, deeply and equally veined. Petals broadly obovate, delicately striated with pellucid, greenish veins. Flowers in August and September.

ORDER V. PENTAGYNIA.

GENUS CLXXXVI. ARMERIA. *Thrift.*

Nat. Order. PLUMBAGINEÆ.

GEN. CHAR. *Calyx* entire, plaited, membranaceous. *Petals* 5, united at the base, bearing the stamens. *Fruit* 1-seeded, indehiscent. *Inflorescence* a capitulum, surrounded by a common, somewhat imbricated, scarious involucrum.

A genus separated from *Statice* by Decandolle chiefly on account of its difference in habit. Plants all perennial, with radical leaves only, and globular, tufted inflorescence. Flowers red, more rarely white, never blue.

ARMERIA MARITIMA. *Common Thrift. Sea Gilliflower.* TAB. **450.**

Leaves linear, flat. Scape much longer than the leaves. Scales of the involucrum shorter than the flowers. Calyx hairy at the base, with 5 sharp teeth, shorter than the corolla.

Statice Armeria, *Linn. E. B.* 226. *Smith* II. 115. *Hooker ed.* 2. 145. *ed.* 3. 148. Armeria maritima, *Decand. Lindley* 170.

"The most humble and most lofty of plants," as was quaintly observed by Lightfoot, is this. We have gathered it on the summit of Snowdon and the highest rocks of Cader-idris, and seen it at the same season reddening the marshes of the Mawddach and the muddy shores of Caernarvonshire even within the reach of the waves; and a similar indifference as to site is its character wherever found. This is the species so much used in gardens for edgings; and from its readiness to thrive in all soils and situations the English name Thrift has probably arisen. It flowers about July and August. A remarkable peculiarity, common however to the genus, consists in the base of the involucrum ending in a scarious sheath, investing the upper part of the scape, and having its lower end loose and lacerated, so that it seems to have been torn off from the root, and carried up by the growing stalk; which would account for its shrivelled appearance, as well as that of the outer bracteæ of the involucrum in which it ends above.

GENUS CLXXXVII. STATICE. *Sea Lavender.*

Nat. Order. PLUMBAGINEÆ.

GEN. CHAR. *Inflorescence* a scape, terminating in loose unilateral panicles, with scarious bracteæ. Otherwise resembling *Armeria*.

Plants all perennial, with radical leaves only, and loose panicled inflorescence. Flowers generally blue or red.

STATICE LIMONIUM. *Common Sea Lavender.* TAB. **451**.

Scapes angular. Panicles corymbus-like. Calyx with deep, acute, plaited segments, and intermediate teeth. Leaves elliptic-lanceolate, single-ribbed, stalked, with a nearly terminal mucro.

Statice Limonium, *E. B.* 102. *Smith* II. 116. *Lindley* 170. *Hooker ed.* 2. 145. *ed.* 3. 148.

A plant of variable size, frequent on muddy sea-shores and salt marshes throughout England, Ireland, and the South of Scotland. Flowers in July and August. The following species was long regarded as a variety of this in its less developed form, but is sufficiently distinct, even as regards habit, not to be confounded by the accurate observer.

STATICE SPATHULATA. *Spathulate Sea Lavender.* TAB. **451***.

Scapes round. Branches of the panicle distichous, more erect. Calyx with plane, blunt segments, without intermediate teeth. Leaves spathulate, mucronate, 3-veined below, glaucous, with a diaphanous border.

Statice binervosa, *E. B. Supp.* 2663. Statice Limonium, *β. Smith* II. 116. Statice spathulata, *Hooker ed.* 2. 145. *ed.* 3. 149. *Bot. Mag.* 1617?

A less frequent plant than the preceding, but found on various parts of the sea-coast. Probably often overlooked, the close approximation of habit rendering the species of this genus indeterminate except by the practised eye. Flowers in August.

STATICE RETICULATA. *Matted Sea Lavender.* TAB. **452**.

Scapes prostrate, zigzag; lower branches barren. Leaves spathulate, rather acute, but without mucro.

Statice reticulata, *E. B.* 328. *Smith* II. 116. *Lindley* 171. *Hooker ed.* 2. 146. *ed.* 3. 149.

Abundant on the coast of Norfolk, but rare elsewhere. The curiously matted and entangled branches, prostrate stems, and awnless leaves, especially distinguish this from the two preceding species. Like them its natural habitat is muddy salt marshes, many acres of which are covered by it in the neighbourhood of Wells, Cley, and Wisbeach. Flowers in July and August.

GENUS CLXXXVIII. LINUM. *Flax.*

Nat. Order. LINEÆ.

GEN. CHAR. *Calyx* 5-leaved, persistent. *Petals* 5. *Capsule* superior, globose, mucronate, with 10 valves and 10 cells. *Seeds* solitary, ovate, compressed.

Herbaceous plants, or low shrubs, with entire, exstipulate leaves, and very fugitive flowers.

LINUM USITATISSIMUM. *Common Flax.* TAB. **453.**

Calyx-leaves ovate, acute, with 3 ribs. Petals crenate. Leaves lanceolate, alternate. Stem mostly solitary.

Linum usitatissimum, *E.B.* 1357. *Smith* II. 118. *Lindley* 53. *Hooker ed.* 2. 147. *ed.* 3. 150.

An annual species, not unfrequent in cultivated fields, flowering in July. Stem upright, about a foot and a half high, smooth, round, leafy; alternately panicled above. Leaves sessile, rather glaucous. Flowers large, purplish-blue, erect, terminating the branches in a sort of panicle.

The Common Flax, so deserving of its title, "usitatissimum," is not an indigenous plant, but supposed to have been originally brought from Egypt into Europe for the purposes of cultivation. The exceeding fineness and tenacity of the woody fibre in its stems occasioned their application to the manufacture called from thence Linen, remarkable as one of the earliest transmutations of vegetable substance into a material so different in its appearance from the growing plant, that, unknown, its origin could scarcely have been suspected. The seeds abound in mucilage, and are much employed in emollient dressings and poultices: an infusion of them is an excellent pectoral, and they yield by expression a large proportion of oil, the well-known Linseed or Lint-seed oil of the shops.

LINUM PERENNE. *Perennial Blue Flax.* TAB. **454.**

Calyx-leaves obovate, obtuse, obscurely 5-ribbed, glabrous. Leaves linear, acute, alternate. Stems numerous.

Linum perenne, *E. B.* 40. *Smith* II. 118. *Lindley* 53. *Hooker ed.* 2. 147. *ed.* 3. 150.

A native of the chalk hills and calcareous soils in several parts of the kingdom, as in Cambridgeshire, Northamptonshire, Norfolk, Suffolk, and Westmoreland. Flowers from June to August. The obtuse, 5-ribbed sepals of the calyx distinguish it alike from the preceding and following species. It is very frequently cultivated as a garden flower.

LINUM ANGUSTIFOLIUM. *Narrow-leaved Pale Flax.* TAB. **455.**

Calyx-leaves elliptical, 3-ribbed, mucronate as well as the capsule. Leaves alternate, linear-lanceolate, acuminate, 3-ribbed. Stems numerous, inclining at the base.

Linum angustifolium, *E. B.* 381. *Smith* II. 119. *Lindley* 53. *Hooker ed.* 2. 147. *ed.* 3. 150.

Frequently met with in sandy and chalky pastures, especially near the sea, and more commonly in the southern than in the northern counties. Very nearly allied to *L. usitatissimum* in the structure of all its parts, but differs in having a woody, perennial root, producing several stems, and in its smaller, pale blue flowers, which are developed about July.

LINUM CATHARTICUM. *Purging Flax. Mill-mountain.* TAB. **456.**

Petals acute. Leaves opposite, obovate-lanceolate. Stem dichotomous above.

Linum catharticum, *E. B.* 382. *Smith* II. 119. *Lindley* 54. *Hooker ed.* 2. 147. *ed.* 3. 150.

An annual species, very abundant everywhere in dry, hilly pastures, especially where the soil is calcareous. Flowers from June to the end of August. The stems are slender, erect, 5 or 6 inches high. An elegant little plant, with small white flowers, not unlike those of an Arenaria, drooping gracefully before their expansion. Its cathartic and diuretic properties have obtained for it a place in our pharmacopœias.

GENUS CLXXXIX. SIBBALDIA.

Nat. Order. ROSACEÆ.

GEN. CHAR. *Calyx* concave, with 10 segments in two series. *Petals* 5, inserted on the calyx. *Capsules* 5 (sometimes 10), indehiscent, in the bottom of the calyx, 1-seeded.

Small herbaceous plants, belonging to alpine situations. The number of stamens is liable to variation; and in their general habit, compound, stipulate leaves, structure of the fruit, and other features, they are very closely allied to the Icosandrous genus *Potentilla*. Flowers generally yellow.

SIBBALDIA PROCUMBENS. *Procumbent Sibbaldia.* TAB. **457.**

Leaves ternate; leaflets wedge-shaped, with 3 teeth.

Sibbaldia procumbens, *E. B.* 897. *Smith* II. 120. *Lindley* 98. *Hooker ed.* 2. 147. *ed.* 3. 151.

A native of the summits of the mountains of Scotland, where it abounds, especially in a micaceous soil. Flowers in July. The root is perennial and woody, throwing out many short, somewhat tufted, procumbent stems. Flowers minute, in small leafy corymbs, terminating the branches. The stamens and pistils vary in number from 5 to 10. Whole plant glaucous and slightly hairy.

ORDER VI. HEXAGYNIA.

GENUS CXC. DROSERA. *Sun-dew.*

Nat. Order. DROSERACEÆ.

GEN. CHAR. *Calyx* 5-cleft. *Petals* 5. *Capsule* 1-celled, 3-valved, many-seeded.

A singular genus of perennial, herbaceous plants, growing only in spongy bogs. Their leaves are all radical and clothed with glandular hairs, from the extremities of which exudes a viscous, pellucid fluid, resembling drops of dew, whence both the generic and popular names. Inflorescence racemose, unilateral. Vernation circinate.

DROSERA ROTUNDIFOLIA. *Round-leaved Sun-dew.* TAB. **458.**

Leaves orbicular, depressed; petioles hairy. Seeds chaffy.
Drosera rotundifolia, *E. B.* 867. *Smith* II. 122. *Lindley* 38. *Hooker ed.* 2. 148. *ed.* 3. 151.

The most common of our British species. Flowers in July. The leaves, which spread in a circle close to the ground, have been described as capable of entrapping insects by a spontaneous movement; but though they are often found folded over an ant or a small fly, the act seems purely mechanical, being occasioned by the struggles of the insect itself to disentangle its limbs, which are held fast by the viscid secretion at the extremities of the hairs.

DROSERA LONGIFOLIA. *Long-leaved Sun-dew.* TAB. **459.**

Leaves obovate, erect; petioles naked. Seeds with a compact, rough coat, not chaffy.
Drosera longifolia, *E. B.* 868. *Smith* II. 123. *Lindley* 38. *Hooker ed.* 2. 148. *ed.* 3. 151.

Less common than *D. rotundifolia*, but its frequent companion in mossy bogs, flowering at the same time. The number of the parts of the fructification are liable to frequent variation in this species, the petals and stamens being often 6 instead of 5, and the styles 8.

DROSERA ANGLICA. *Great Sun-dew.* TAB. **460.**

Leaves linear-oblong, obtuse, erect; petioles naked. Styles 8. Capsule 4-valved. Seeds with a loose chaffy coat.
Drosera anglica, *E. B.* 869. *Smith* II. 123. *Lindley* 38. *Hooker ed.* 2. 148. *ed.* 3. 152.

A comparatively rare species, by some considered a variety of the preceding, but larger in all its parts, and presenting a very marked difference in the more lengthened outline of the leaves. The number of the styles is obviously not a character to be depended upon, any more than the 4 valves of the capsule, as both features occur occasionally in *D. longifolia.* The different texture of the seed-coat is important, if permanent, which some of our specimens incline us to doubt. It flowers in July and August. All the species of *Drosera* are acrid, and their juice is sometimes employed to destroy warts and corns. They have the reputation of occasioning the rot in sheep, whence the name of *Red-rot* applied to them indiscriminately in some parts of the kingdom, but without foundation, the disease in question arising from the unwholesome nature of the swamps in which they grow.

ORDER VII. POLYGYNIA.

GENUS CXCI. MYOSURUS. *Mousetail.*

Nat. Order. RANUNCULACEÆ.

GEN. CHAR. *Calyx* 5-leaved, spurred at the base. *Petals* 5, with filiform, tubular claws. *Capsules* indehiscent, 1-seeded, inserted in a spiked form upon an elongated, columnar receptacle.

A single species only is known of this very remarkable genus.

MYOSURUS MINIMUS. *Common Mouse-tail.* TAB. **461.**

Scapes about the length of the leaves. Spurs of the calyx leafy.

Myosurus minimus, *E. B.* 435. *Smith* II. 124. *Lindley* 10. *Hooker ed.* 2. 149. *ed.* 3. 152.

This little plant, the singular habit of whose flowers renders it an object of interest to the young botanist, is met with in gravelly cornfields and neglected pastures in several parts of the kingdom, and is probably more frequent than generally imagined, its small size rendering it liable to be overlooked. It is an annual, flowering in May, after which it soon sheds its seeds and withers away. The height of the scape, which bears a single flower only, varies from 2 to 6 or 7 inches, according to the richness of the soil. The leaves are somewhat fleshy, linear, erect, and of a pale green colour. The flowers are remarkable for the great length of the receptacle, which, as the seeds approach maturity, often extends to 3 inches, and resembles a mouse's tail; and likewise for the enormous disproportion that the number of pistils (sometimes 200 or 300) bears to that of the stamens, which though far from constant rarely amounts to 20, and is seldom more than 5. The practical botanist can scarcely overlook the close affinity between this genus and *Ranunculus*, evinced in the spurs of the calyx, tubular claws of the petals, and even the elongated receptacle of the former, when contrasted with the concave, almost saccate sepals, nectariferous pores, and numerous pistils of the latter. Indeed when the indefinite stamens and other circumstances of their mutual structure are regarded, their separation, however admissible in an artificial, is totally at variance with the laws of a natural arrangement.

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

GENUS CXCII. BERBERIS. *Barberry.*

Nat. Order. BERBERIDEÆ.

GEN. CHAR. *Calyx* inferior, 6-leaved, deciduous, coloured, with external scales. *Petals* 6, each with two glands at the base (abortive stamens?). *Berry* 2- or 3-seeded.

Ornamental shrubs with spiny stems and leaves, and yellow racemose inflorescence. Their general properties are acidity and astringency. Several species are employed as dyes.

BERBERIS VULGARIS. *Common Barberry.* TAB. **462.**

Racemes pendulous. Spines 3-cleft. Leaves oblong-obovate, their serratures ending in soft spines.

Berberis vulgaris, *E.B.* 49. *Smith* II. 184. *Lindley* 14. *Hooker ed.* 2. 153. *ed.* 3. 157.

The Barberry is common in hedges and copses, though chiefly in calcareous soils, flowering in June. Its bright red berries are very conspicuous through the autumn, and on account of their grateful acidity are much employed for pickles and preserves. The root yields a yellow dye, and the bark is a powerful astringent. The flowers afford a remarkable instance of vegetable irritability. On touching the bases of the filaments, the stamens spring forward and strike against the stigma, the petals closing over them at the same time; if the anthers be ripe this act discharges the pollen, otherwise the parts soon return to their original position, and the experiment may be repeated several times consecutively with the same flower. This shrub has the repute of being injurious to corn, wheat in particular, the ears of which are said never to fill in its vicinity: the influence is questioned, but deserves the consideration of those whom it may interest, our own observation, though limited, being in favour of its existence.

GENUS CXCIII. FRANKENIA. *Sea-heath.*

Nat. Order. FRANKENIACEÆ.

GEN. CHAR. *Calyx* inferior, tubular, (mostly) 5-cleft. *Petals* (mostly) 5, with appendages at their base. *Stigmas* 3.

Capsule 1-celled, 3- or 4-valved; valves bearing many seeds at their margins.

Procumbent or creeping herbs, or shrubby, with opposite leaves, membranous and sheathing at the base, and sessile, pink or red flowers. The inequality of number between the envelopes and stamens seems to indicate a tendency to the development of a second series of the latter, as occurs in *Lychnis*, *Silene*, and others of the natural order *Caryophylleæ*, to which these plants are otherwise nearly allied.

FRANKENIA LÆVIS. *Smooth Sea-heath.* TAB. **463.**

Leaves linear, revolute, glabrous, ciliated at the base, clustered.
Frankenia lævis, *E. B.* 205. *Smith* II. 186. *Lindley* 39. *Hooker ed.* 2. 153. *ed.* 3. 157.

A perennial, procumbent species, flowering in July and August. Found only in muddy salt marshes, abundant on the eastern coast in many places, but rare elsewhere. Its pretty rose-coloured flowers are either terminal or occupy the axils of the branches, which are irregular in their growth but usually opposite.

FRANKENIA PULVERULENTA. *Powdery Sea-heath.* TAB. **464.**

Leaves obovate, abrupt, downy and pulverulent beneath; petiole ciliated.
Frankenia pulverulenta, *E. B.* 2222. *Smith* II. 186. *Lindley* 39. *Hooker ed.* 2. 154. *ed.* 3. 157.

One of the rarest of British plants, and a doubtful native at present, though found in the time of Dillenius and Hudson in similar situations with the preceding on the coast of Sussex. It is an annual, flowering in July. Readily distinguished from the common species by its obtuse leaves, smaller flowers, and dichotomous stems.

GENUS CXCIV. PEPLIS. *Water-Purslane.*

Nat. Order. SALICARIÆ.

GEN. CHAR. *Calyx* campanulate, 12-cleft; the 6 alternate lobes broader, erect, the others subulate, recurved. *Petals* 6, inserted on the calyx, fugacious. *Capsule* superior, 2-celled, many-seeded.

These, though allied to a very showy natural group, are insignificant weeds. Their minute, axillary flowers will only interest a close observer.

PEPLIS PORTULA. *Common Water-Purslane.* TAB. **465.**

Leaves opposite, obovate. Flowers solitary.
Peplis Portula, *E. B.* 1211. *Smith* II. 187. *Lindley* 72. *Hooker ed.* 2. 154. *ed.* 3. 157.

A low, creeping annual, frequent in watery places on a gravelly or sandy soil, and flowering in July and August.

GENUS CXCV. GALANTHUS. *Snowdrop.*

Nat. Order. AMARYLLIDEÆ.

GEN. CHAR. *Perianthium* superior, campanulate, petaloid, of 6 pieces; the 3 outer spreading, 3 inner smaller, erect, emarginate. *Stigma* simple. *Flowers* spathaceous.

Bulbous plants, with solitary, white, pendent flowers and anthers turned inwards. *Leaves* linear with parallel veins.

GALANTHUS NIVALIS. *Common Snowdrop.* TAB. **466.**

Leaves not plaited.
Galanthus nivalis, *E. B.* 19. *Smith* II. 129. *Lindley* 265. *Hooker ed.* 2. 154. *ed.* 3. 157.

"The first pale blossom of the unripen'd year—
"As Flora's breath, by some transforming power,
"Had changed an icicle into a flower."

Long cultivated, and welcomed equally by the cotter and his lord as herald of approaching spring, the Snowdrop has escaped from the confinement of the parterre, and may be seen wild in many a coppice, mead, and fairy dell throughout the kingdom. The French call it *Perce-neige*, in allusion to its well-known habit of blooming even above the unmelted snow.

GENUS CXCVI. LEUCOJUM. *Snowflake.*

Nat. Order. AMARYLLIDEÆ.

GEN. CHAR. *Perianthium* superior, campanulate, petaloid; segments 6, equal, thickened at the apex, connected at the base. *Stigma* simple. *Flowers* spathaceous.

Bulbous plants with linear leaves, white, drooping flowers and anthers turned inwards. The uniformity of the segments of the perianthium distinguishes this genus from the last.

LEUCOJUM ÆSTIVUM. *Summer Snowflake.* TAB. **467.**

Scape 2-edged. Spathe many-flowered. Style club-shaped.
Leucojum æstivum, *E. B.* 621. *Smith* II. 130. *Lindley* 265. *Hooker ed.* 2. 154. *ed.* 3. 157.

An ornamental plant, frequently cultivated in gardens, but first noticed wild by Mr. Curtis, who found it growing on the Thames' side between Greenwich and Woolwich, a site it still occupies; and though probably not indigenous, is now naturalized in moist meadows and marshes near rivers in several parts of England. Flowers in May. Increases rapidly by offsets of the bulb, and in a wild state by seed.

GENUS CXCVII. NARCISSUS. *Daffodil.*

Nat. Order. AMARYLLIDEÆ.

GEN. CHAR. *Perianthium* superior, petaloid, funnel-shaped, with a spreading 6-parted limb, and a campanulate or cup-shaped corona or nectary surrounding the orifice and concealing the stamens.

Early flowering bulbous plants, with linear leaves and spathaceous inflorescence. The numerous species of *Narcissus* have been long under cultivation, and are among the most specious ornaments of our gardens; to which their elegant habit, and the pleasant, though powerful, scent of their large white and yellow flowers, probably induced their early introduction. The various proportions and forms of the corona and segments of the perianthium especially distinguish the species of this genus. The bulbs are powerfully emetic and dangerous.

NARCISSUS PSEUDO-NARCISSUS. *Common Daffodil.* TAB. **468.**

Spathe single-flowered. Corona campanulate, erect, with 6 crisped, marginal segments; its length equalling that of the ovate, slightly expanding limbs of the perianthium.

Narcissus Pseudo-narcissus, *E. B.* 17. *Smith* II. 132. *Lindley* 265. *Hooker ed.* 2. 154. *ed.* 3. 158.

Not uncommon in moist woods and copses, where it may be found in flower about the middle of March. The Common double Daffodil of the gardens is not a variety of this, but of a foreign species of much larger size.

NARCISSUS POETICUS. *Narcissus of the Poets.* TAB. **469.**

Spathe single-flowered. Corona very short, depressed; membranous and crenate at the margin. Leaves obtusely carinate, with a reflexed margin.

Narcissus poeticus, *E. B.* 275. *Smith* II. 131. *Lindley* 265. *Hooker ed.* 2. 155. *ed.* 3. 158.

This is the true Narcissus of the ancient writers, whose fabular origin is so familiar to the classic reader. It has been long naturalized, though not originally a native of England, and is found wild in open, heathy spots, where the soil is sandy, flowering in May. The spathe sometimes bears 2 flowers, but the pure white of the perianthium, deeply coloured border of the corona, and delicate scent, readily distinguish it from the following species.

NARCISSUS BIFLORUS. *Primrose-peerless. Pale Narcissus.* TAB. **470.**

Spathe 2-flowered. Corona very short, depressed; membranous and crenate at the margin. Leaves acutely carinate, with an inflexed margin.

Narcissus biflorus, *E. B.* 276. *Smith* II. 132. *Lindley* 265. *Hooker ed.* 2. 155. *ed.* 3. 158.

Naturalized in some parts of England and Ireland, but less frequent than the preceding, in similar situations. It flowers somewhat earlier than *N. poeticus*, but we have gathered both in perfection on the rabbit warren at Shorne in Kent towards the end of May. The scape bears sometimes three flowers, rarely but one, distinguished by the pale yellow perianthium, and whitish border of the corona or nectary. Their scent is powerful, pleasant at a distance in the open air, but injurious in a close room, occasioning giddiness and headache to many persons; a property in character with the generic name, derived from νάρκη, 'stupor.'

GENUS CXCVIII. FRITILLARIA. *Fritillary.*

Nat. Order. LILIACEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, campanulate, of 6 pieces, each with a nectariferous cavity at the base. *Stigmas* 3. *Capsule* 3-celled, 3-valved, oblong. *Seeds* flat.

A very beautiful genus of hardy bulbous plants, with leafy stems and pendent flowers, whose segments have a remarkable cavity at the base, in which is secreted a limpid, saccharine fluid, that remains suspended in the form of a drop so long as the flowers retain their freshness. The Crown-imperial of our gardens, *F. imperialis*, belongs to a small section of the genus, natives of Persia, distinguished by their stately habit, numerous whorled flowers, and terminal tufts of leaves. Flowers various shades of purple and yellow, sometimes white; never bright red or blue.

FRITILLARIA MELEAGRIS. *Common Fritillary. Chequered Daffodil. Snake's-head Lily. Guinea-hen-flower.* TAB. **471.**

Leaves alternate, linear-lanceolate. Stem single-flowered. Points of the perianthium inflexed. Nectary linear.

Fritillaria Meleagris, *E.B.* 622. *Smith* II. 139. *Lindley* 266. *Hooker ed.* 2. 159. *ed.* 3. 163.

This elegant species, though rather locally distributed, abounds in moist meadows in several of the southern and eastern counties of England, especially in the vicinity of the Thames and other tide rivers; being rather partial to sites that are occasionally overflowed. Both the generic and specific names accord with the appearance of its flowers, the former being derivable from *fritillus*, 'a dice-box,' and the latter alluding to the Guinea-fowl, *Numidia Meleagris*, whose plumage their markings somewhat resemble. It flowers in April, and is easily overlooked both before the buds open and while in seed.

GENUS CXCIX. TULIPA. *Tulip.*

Nat. Order. LILIACEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, campanulate, of 6 pieces; wanting the nectariferous pores. *Stigmas* 3, sessile. *Capsule* oblong, trigonous. *Seeds* flat.

Well known as garden flowers, displaying numberless varieties and gaudy contrasts of colour, whence the high estimation of the common species by florists. They are chiefly indigenous to the western parts of Asia and the contiguous European countries. The only British species is a doubtful native.

TULIPA SYLVESTRIS. *Wild Tulip.* TAB. **472.**

Flowers solitary, somewhat drooping: segments of the perianthium ovato-acuminate, bearded at the apex. Stamens hairy at the base. Stigma obtuse.

Tulipa sylvestris, *E.B.* 63. *Smith* II. 140. *Lindley* 266. *Hooker ed.* 2. 160. *ed.* 3. 163.

The Wild Tulip, not uncommon in some parts of the Continent, was adopted as a British plant in the first edition of the *English Botany* from having been discovered in an old chalk-pit near Bury, and in a similar situation near the city of Norwich. Whatever doubt might have existed at that period respecting the validity of its claim to a place in our Flora, its naturalization is unquestionable at present, several places in Hertfordshire, Middlesex, and even in Scotland, being now added to the original habitats. Though unable to compete with the Oriental splendour of its garden relative *T. Gesneriana*, our plant possesses a charm which is denied to the former, its flowers in their plain yellow garb being delightfully fragrant. Dr. Hooker observes that "the Wild Tulip increases by throwing out a long stout fibre from its root, at the extremity of which a bulb appears. Thus is a new individual planted at a considerable distance from the parent." The bulb is exceedingly small, compared with the size of the plant and those of other species. Flowers in April.

GENUS CC. ALLIUM. *Garlic.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, 6-parted, spreading. *Stigma* simple. *Capsule* triquetrous.

Plants bulbous, with terminal, umbellate inflorescence arising from a 2-leaved spathe. Remarkable for their peculiar pungent scent and flavour, which is due to the presence of free phosphoric acid. Many of the species have been long under cultivation as articles of food or condiment, especially *A. Cepa*, the Onion; *A. Schœnoprasum*, the Chive; *A. sativum*, the Common Garlic; *A. ascalonicum*, the Shallot; *A. Porrum*, the Leek; and *A. Scorodoprasum*, the Rocambole; while others, as *A. Moly* and *A. descendens*, have flowers of sufficient beauty to obtain a place in the parterre. The Common Onion offers a singular instance of a bulbous plant being biennial; the Leek, which is described as such in our catalogues, is generally perennial.

ALLIUM AMPELOPRASUM. *Great Round-headed Garlic.* TAB. **473.**

Umbel globose, without bulbs. Stem leafy below. Leaves linear, flat. 3 alternate stamens deeply 3-cleft. Petals rough on the keel.

Allium Ampeloprasum, *E. B.* 1657. *Smith* II. 133. *Lindley* 267. *Hooker ed.* 2. 156. *ed.* 3. 159.

A rare species in England, being only found wild on the island called Flat Holmes, in the Severn. Flowers in August. Nearly allied to the Leek, *A. Porrum*, but with perennial clustered bulbs. Stem 4 or 5 feet high.

ALLIUM ARENARIUM. *Sand Garlic.* TAB. **474.**

Umbel globose, bearing bulbs. Stems leafy below. Leaves linear, with cylindrical sheaths. Segments of the spathe obtuse. 3 alternate stamens 3-cleft. Petals roughish on the keel.

Allium arenarium, *E. B.* 1358. *Smith* II. 134. *Lindley* 267. *Hooker ed.* 2. 156. *ed.* 3. 159.

This pretty species is a native of mountainous woods and pastures in the North of England and in Scotland, and grows likewise abundantly on the sands of Portmarnock, Ireland. It flowers in July, seldom ripening its seeds, but propagating rapidly by the bulbs which are formed among the flowers and fall in autumn from the umbel.

ALLIUM CARINATUM. *Mountain Garlic.* TAB. **475.**

Umbel lax, bulbiferous. Stem leafy. Leaves linear, keeled, flat. Stamens all simple. Leaves of the spathe very long, unequal, tapering.

Allium carinatum, *E. B.* 1658. *Smith* II. 135. *Lindley* 268. *Hooker ed.* 2. 156. *ed.* 3. 159.

Found in several situations in a sandy soil, but chiefly on the mountainous districts of the North. This plant has but little of the Garlic smell. It is nearly allied in habit to the two following species, especially in the laxity of its umbels, bearing few flowers and numerous bulbs, but is well distinguished by its broader, expanded leaves, and larger size. From 2 to 3 feet high. Flowers in July.

ALLIUM OLERACEUM. *Streaked Field Garlic. Wild Garlic.* TAB. **476.**

Umbels lax, bulbiferous. Leaves semicylindrical, rough; channeled above, ribbed beneath. Stamens all simple. Leaves of the spathe ovato-concave below, with their edges rolled in towards the extremity, forming long points.

Allium oleraceum, *E. B.* 488. *Smith* II. 136. *Lindley* 268. *Hooker ed.* 2. 156. *ed.* 3. 160.

Not uncommon on the borders of corn-fields, balks, and waste grounds in various parts of the kingdom. A smaller plant than *A. carinatum*, with which it has sometimes been confounded. Flowers in July. The young leaves are occasionally eaten boiled in soups, or fried with other herbs.

ALLIUM VINEALE. *Crow Garlic.* TAB. **477.**

Umbel bulbiferous. Leaves fistulose. 3 alternate stamens deeply 3-cleft.

Allium vineale, *E. B.* 1974. *Smith* II. 137. *Lindley* 268. *Hooker ed.* 2. 156. *ed.* 3. 160.

More frequent than either of the two preceding species, in dry fields and waste places, especially where the soil is calcareous, throughout England and the South of Scotland; and well distinguished by its tubular leaves, more compact umbels with numerous bulbs, and 3-cleft stamens, which protrude far beyond the perianthium. Flowers in July. The young shoots are sometimes eaten in salads.

ALLIUM URSINUM. *Ramsons. Broad-leaved Garlic.* TAB. **478.**

Umbel nearly plane. Leaves all radical, elliptic-lanceolate, on footstalks. Scape triangular.

Allium ursinum, *E. B.* 122. *Smith* II. 137. *Lindley* 268. *Hooker ed.* 2. 157. *ed.* 3. 160.

The most common plant of the genus, growing plentifully in woods, hedges, and even in moist meadows throughout most parts of England. The copious snow-white flowers appear early in May, and are highly ornamental, enlivening many a shady dell with their brightness, and courting that nearer acquaintance which the strong garlic odour of the bruised herb quickly turns to disgust. This, as well as some of the other species of *Allium*, is regarded as a troublesome weed, being eaten by cattle in spring, especially cows, whose milk is rendered useless in consequence of the intolerably nauseous flavour it communicates.

ALLIUM SCHŒNOPRASUM. *Chive Garlic. Chives.* TAB. **479.**

Leaves radical, cylindrical, fistulose, tapering to a point. Scape cylindrical, smooth, the height of the leaves. Stamens simple.

Allium Schœnoprasum, *E. B.* 2441. *Smith* II. 138. *Lindley* 268. *Hooker ed.* 2. 157. *ed.* 3. 160.

This well-known garden plant is rare in a wild state, but has been found in meadows and pastures in several of the northern counties, and likewise in Cornwall. Flowers in June.

GENUS CCI. GAGEA. *Gagea.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, 6-parted, persistent; converging below, spreading above. *Filaments* not dilated at the base. *Stigma* gaping. *Capsule* triangular.

A genus separated from *Ornithogalum* in consequence of the difference in the structure of the stamens. We comply with custom in adopting it, rather than from conviction of the utility or justness of the division. The large, leaf-like bracteæ are a very prominent feature of, and give a peculiar habit to, the only British species. Hardy bulbous plants, generally natives of Europe, with yellow, corymbose or umbellate flowers.

GAGEA LUTEA. *Yellow Gagea. Yellow Bethlehem-star.* TAB. **480.**

Radical leaves 1 or 2, linear, longer than the angular scape. Bracteæ longer than the umbel, linear-lanceolate. Segments of the perianthium lanceolate, obtuse.

Ornithogalum luteum, *Linn. E. B.* 21. *Smith* II. 142. Gagea lutea, *Salisbury. Lindley* 268. *Hooker ed.* 2. 157. *ed.* 3. 160.

Not very frequent, but met with in groves and pastures in a moist, sandy soil, in several parts of England and the lowlands of Scotland. Flowers in March and April.

GENUS CCII. ORNITHOGALUM. *Star of Bethlehem.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, subherbaceous, 6-parted, persistent; converging below, spreading above. *Filaments* dilated at the base. *Stigma* capitate. *Capsule* bluntly triangular.

The dilation of the filaments forms the chief character of distinction between this genus and the last; added to which, the perianthium is usually less petaloid, and the bracteæ membranaceous. It is a widely distributed genus of bulbous plants, with ornamental, greenish, white or yellow flowers, disposed in racemes, or corymbose.

ORNITHOGALUM PYRENAICUM. *Spiked Star of Bethlehem.* TAB. **481**.

Raceme very long. Filaments all dilated. Flower-stalks equal, spreading; erect, and adpressed in fruit.

Ornithogalum pyrenaicum, *E. B.* 499. *Smith* II. 143. *Lindley* 268. *Hooker ed.* 2. 157. *ed.* 3. 160.

This, as well as the other British species of Ornithogalum, appears to be a naturalized plant only, and is rare in an apparently wild state. It occurs in pastures in Sussex, Somersetshire, and Bedfordshire, flowering in June and July. The scape is from 1½ to 2 feet high, but the flowers are smaller and less ornamental than those of the two following species.

ORNITHOGALUM UMBELLATUM. *Common Star of Bethlehem.* TAB. **482**.

Inflorescence a corymbus. Peduncles longer than the bracteæ. Filaments dilated, tapering, entire.

Ornithogalum umbellatum, *E. B.* 130. *Smith* II. 143. *Lindley* 269. *Hooker ed.* 2. 157. *ed.* 3. 161.

Common in gardens, whence it has long since migrated to the neighbouring fields and woods in various parts of the country. The flowers appear in April and May, expanding in the day-time in bright weather only. The bulbs, which are edible when boiled, are much used as food in the Levant, and supposed to be the "*dove's dung*" that was sold so dear at the siege of Samaria, as recorded in Scripture (2nd Book of Kings, ch. 6. ver. 25). The generic name, *Ornithogalum* (Bird's-milk), seems to have reference to the white fluid that always accompanies the dung of birds, which the mingled green and white of the closed flowers somewhat resembles.

ORNITHOGALUM NUTANS. *Drooping Star of Bethlehem.* TAB. **483**.

Flowers pendulous, unilateral. Filaments dilated, cloven; converging, campanulate: 3 of them longer, with their lobes equal to the anther.

Ornithogalum nutans, *E. B.* 1997. *Smith* II. 144. *Lindley* 269. *Hooker ed.* 2. 157. *ed.* 3. 161.

The largest-flowered and most elegant of our native species, less frequent than the last, and like it a probable wanderer from the garden to fields and orchards in several parts of England. It flowers in April and May. The structure of the stamens affords a remarkable illustration of the modern theory, which regards those organs as modifications of petals.

GENUS CCIII. SCILLA. *Squill.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, of 6 pieces, generally spreading, deciduous. *Filaments* filiform, smooth; inserted at the base of the perianthium.

An elegant genus of hardy bulbous plants, with racemose, blue or white flowers. Chiefly European.

SCILLA VERNA. *Vernal Squill.* TAB. **484.**

Bulb coated. Raceme few-flowered, hemispherical, corymbus-like. Bracteæ lanceolate, obtuse. Leaves linear, channeled, numerous.

Scilla verna, *E. B.* 23. *Smith* II. 145. *Lindley* 269. *Hooker ed.* 2. 158. *ed.* 3. 161.

A common plant on the western and northern coasts, and the adjacent islands of Great Britain. The flowers, which are fragrant, appear in April, supported on a scape 4 or 5 inches high, and scarcely equaling the leaves.

SCILLA BIFOLIA. *Two-leaved Squill.* TAB. **485.**

Bulb coated. Raceme lax. Bracteæ obsolete. Leaves lanceolate, generally 2.

Scilla bifolia, *E. B.* 24. *Smith* II. 146. *Lindley* 269. *Hooker ed.* 2. 158. *ed.* 3. 161.

This pretty little species is a very doubtful native. It was introduced as such in the first edition of this work, chiefly on the authority of Buddle's Herbarium in the British Museum; since which we have no additional testimony of its existing here in a wild state, unless specimens received by Mr. Sims of Norwich from the West of England, but without any specific habitat, can be regarded as such. Its beauty as an early spring flower renders it a frequent tenant of the garden, where the ordinary bright blue colour of the perianth is sometimes exchanged for white.

SCILLA AUTUMNALIS. *Autumnal Squill.* TAB. **486.**

Bulb coated. Leaves linear, numerous. Bracteæ obsolete. Pedicels ascending, the length of the flowers.

Scilla autumnalis, *E. B.* 78. *Smith* II. 146. *Lindley* 269. *Hooker ed.* 2. 158. *ed.* 3. 161.

A less conspicuous plant than the preceding, but still a very elegant little species, and not unfrequent on rocks and dry sandy pastures in the southern counties. It flowers towards the end of September; at which period only its presence is likely to be detected among the short grass, which its leaves so nearly resemble. The diligent botanist will find it far more common, in the vicinity of the metropolis especially, than is generally considered.

GENUS CCIV. HYACINTHUS. *Hyacinth.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, 6-cleft or 6-parted, tubular; segments reflected at the apex. *Stamens* included, inserted about the middle of the perianthium. *Capsule* obtusely 3-cornered; cells many-seeded.

The limits of this genus and *Scilla* are so obscurely defined, that it is difficult to decide under which the following species should with propriety be placed. We restore it, though with some hesitation, to the Linnæan genus, with which it accords in habit.

HYACINTHUS NON-SCRIPTUS. *Wild Hyacinth. Hare-bell.* TAB. **487.**

Raceme drooping. Flowers pendent, campanulate. Bracteæ in pairs. Leaves linear, flaccid.

Scilla nutans, *E. B.* 377. *Smith* II. 147. Hyacinthus non-scriptus, *Linn. Lindley* 270. *Hooker ed.* 2. 158. *ed.* 3. 162.

The Hare-bell, whatever doubt may attach to its generic affinity, is the legitimate representative of the Liliaceous orders in this country, where it is to the recesses of the wood and thicket what the Daisy and Buttercup are to the open field, the predominating hue and feature of their early vegetation. The flowers vary occasionally to white and flesh-colour; they possess a slight fragrance. The bulbs are acrid and poisonous, abounding in the viscid juice which characters the *Asphodeleæ*, but though unfit for food are capable of being manufactured into starch.

GENUS CCV. MUSCARI. *Grape-Hyacinth.*

Nat. Order. ASPHODELEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, ovate, inflated, 6-toothed. *Capsule* trigonous, with the angles prominent; cells 2-seeded.

Hardy bulbous plants, natives almost exclusively of southern Europe and the neighbouring parts of Asia. They were originally confounded with *Hyacinthus*, but are sufficiently distinguished by their inflated perianthium and definite seeds.

MUSCARI RACEMOSUM. *Starch Grape-Hyacinth.* TAB. **488.**

Raceme crowded. Flowers ovate with 6 furrows; the upper ones sessile and abortive. Leaves linear, channeled, longer than the scape, loosely spreading.

Hyacinthus racemosus, *Linn. E. B.* 1931. *Smith* II. 149. Muscari racemosum, *Lindley* 269. *Hooker ed.* 2. 158. *ed.* 3. 162.

This common garden flower is only a naturalized foreigner, being unknown as a British plant in the time of Ray and Dillenius, but now found wild in great abundance in fields on a sandy soil, and likewise among ruins, in Norfolk and Suffolk. The flowers, which appear in May, smell like wet starch, whence the English name; the lower ones are pendent upon short stalks, the upper and terminal sessile, with the pistil obsolete.

Genus CCVI. ANTHERICUM. *Spider-wort.*

Nat. Order. Asphodeleæ.

Gen. Char. *Perianthium* inferior, petaloid, of 6 equal, spreading, elliptical pieces. *Filaments* filiform, mostly bearded (*the British species an exception*). *Capsule* roundish, 3-celled. *Seeds* few, angular.

The genus *Anthericum*, in its modern extent, consists chiefly of Cape plants with perennial roots and white flowers. The English name *Spider-wort*, given in allusion to the hairy filaments, has certainly not any reference to our native plant, which is at best but a doubtful ally.

ANTHERICUM serotinum. *Mountain Spider-wort.* Tab. **489.**

Leaves semi-cylindrical; cauline ones dilated at the base. Flowers mostly solitary. Filaments smooth.

Anthericum serotinum, *E. B.* 793. *Smith* II. 150. *Lindley* 269. *Hooker ed.* 2. 159. *ed.* 3. 162.

One of our most local plants, being found only on the highest and most inaccessible rocks of the Snowdon range in Caernarvonshire. It flowers in June, the stalk rising from 4 to 6 inches high from a bud encased by the decayed bases of the leaves of the preceding year.

Genus CCVII. ASPARAGUS. *Sperage.*

Nat. Order. Asphodeleæ.

Gen. Char. *Perianthium* inferior, subherbaceous, 6-parted, deciduous. *Stigmas* 3. *Berry* globose, 3-celled, or by abortion 1-celled. *Seeds* few. *Embryo* excentric.

Plants of various habit, shrubby, climbing, or herbaceous with creeping roots, vegetating in sandy soils throughout the eastern hemisphere. Many of the species are armed with spines, whence the generic name, derived from σπαράσσω, 'to tear.' Flowers mostly inconspicuous, white or greenish.

ASPARAGUS officinalis. *Common Asparagus. Sperage.* Tab. **490.**

Stems herbaceous, generally erect, round, branched; without spines. Leaves bristle-shaped, flexible, in tufts. Stipulæ solitary. Peduncles jointed in the middle.

Asparagus officinalis, *E.B.* 339. *Smith* II. 152. *Lindley* 267. *Hooker ed.* 2. 159. *ed.* 3. 162.

The Common Asparagus is frequent on the southern and south-western coasts of England, growing in saline marshes and meadows, and likewise on the beach among sand and pebbles above high-water mark. Few persons would suppose the diminutive herb here figured to be the origin of the luxuriant garden vegetable which bears its name, and is so generally esteemed for its esculent qualities. No plant, however, varies more in development than this, according to the soil in which it vegetates; and the young shoots, which in a wild state are usually harsh and wiry, are rendered thicker and more succulent in proportion to the care of the cultivator. Asparagus, called by corruption Sparrow-grass, partakes of the prevailing property of the natural order to which it belongs, being, when used as food, mildly diuretic. The juice contains a crystallizable principle called Asparagin. The flowers are produced in August, and are frequently unisexual; in some the stamens, in others the pistil, being abortive.

GENUS CCVIII. CONVALLARIA. *Lily of the Valley. Solomon's Seal.*

Nat. Order. SMILACEÆ.

GEN. CHAR. *Perianth* inferior, petaloid, deciduous, globose or cylindrical, 6-cleft. *Style* simple. *Berry* 3-celled, globular, before maturity spotted. *Seeds* 1, rarely 2, in each cell.

Perennial herbaceous plants, with creeping rhizoma, broad leaves with parallel veins, and white or yellowish flowers. Natives of rocky woods, groves, and thickets, in temperate climates throughout the world, but chiefly in Europe and North America. The species vary in the form of the perianth and mode of inflorescence, but the difference is scarcely sufficient to warrant our separation of the genus.

CONVALLARIA MAJALIS. *Lily of the Valley.* TAB. **491.**

Scape semicylindrical. Flowers in a raceme, drooping, globose-campanulate, with deep segments. Leaves in pairs, ovate-lanceolate.

Convallaria majalis, *E.B.* 1035. *Smith* II. 154. *Lindley* 270. *Hooker ed.* 2. 155. *ed.* 3. 158.

This elegant and delightfully fragrant plant, so generally cultivated in the flower garden, is a frequent inhabitant of our woods and thickets, especially in rocky and mountainous situations, where only its pretty white flowers and large crimson berries are otherwise than sparingly produced in a wild state. A creeping-rooted perennial. Flowers in May.

CONVALLARIA VERTICILLATA. *Narrow-leaved Solomon's Seal.* TAB. **492.**

Leaves linear-lanceolate, verticillate. Flowers cylindrical.
Convallaria verticillata, *E. B.* 128. *Smith* II. 154. *Lindley* 270. *Hooker ed.* 2. 155. *ed.* 3. 158.

A rare species, found hitherto only in the deep woody vales and glens of Scotland. Its stems rise erect to the height of 2 feet, and are naked towards the lower part, but thickly set with leaves, 3 or 4 in a whorl, above. The flowers, which are produced in June, grow singly or several together on pendent simple or branched footstalks, from the axils of the leaves. The berry is blue.

CONVALLARIA MULTIFLORA. *Common Solomon's Seal.* TAB. **493.**

Stem round. Leaves alternate, stem-clasping. Peduncles axillary, many-flowered. Flowers cylindrical; stamens downy.
Convallaria multiflora, *E. B.* 279. *Smith* II. 156. *Lindley* 271. *Hooker ed.* 2. 155. *ed.* 3. 159.

A native of woods and coppices in many parts of the kingdom. The elegance of its habit has rendered it a frequent inmate of the shaded garden. Its stems rise from a foot to 18 inches, and are gracefully curved from about the middle, where the foliage commences. The leaves spread horizontally or incline upwards, sheltering the pendent flowers, which are scentless, of a yellowish white hue with green tips, and expand about May or June. The berries are of a glaucous or bluish black colour, but, as occurs in most of the genus, which increase rapidly by their creeping rhizoma, are sparingly produced. The young shoots of this and the following species may be eaten like Asparagus; and the rhizoma, which is large and fleshy, abounds in farinaceous matter, capable of being employed as food after it is baked in order to dissipate a slight acridity.

CONVALLARIA POLYGONATUM. *Angular Solomon's Seal.* TAB. **494.**

Stem angular. Leaves stem-clasping, alternate. Peduncles axillary, (mostly) single-flowered. Flowers cylindrical; stamens smooth.
Convallaria Polygonatum, *E. B.* 280. *Smith* II. 155. *Lindley* 270. *Hooker ed.* 2. 155. *ed.* 3. 159.

This is a comparatively rare species, nearly resembling the last in habit, but readily distinguished by its angular stems and larger fragrant flowers, which generally grow singly, or at most in pairs, and have a green line running down each segment of the perianthium. It seems chiefly confined, as a native plant, to rocky mountainous woods. Flowers in May and June. Berries black.

GENUS CCIX. ACORUS. *Sweet Flag.*

Nat. Order. AROIDEÆ.

GEN. CHAR. *Inflorescence* spadiceous. *Spadix* naked. *Perianthium* globose, of 6 pieces, inferior. *Stigma* sessile. *Capsule* 3-celled, many-seeded, indehiscent.

Iris-like plants, belonging to watery situations. Of the 3 known species one only is essentially European. They are highly aromatic in every part, and rival the *Scitamineæ* of the tropics in the pungency of their rhizoma.

ACORUS CALAMUS. *Common Sweet Flag.* TAB. **495.**

Leaf-like summit of the scape rising high above the spadix.

Acorus Calamus, *E. B.* 356. *Smith* II. 157. *Lindley* 246. *Hooker ed.* 2. 160. *ed.* 3. 163.

The Sweet Flag is found wild in several parts of our island, but especially in the middle and south-eastern counties of England, occupying the margins of rivers, pools, ditches, and even in marshes which are occasionally under water. Its fructification, which appears in July, is however of rare occurrence. The scape or flower-stem seems to be only a modification of a leaf, being flat, ancipitate, and actually extending in a lamellar form above the spadix, which seems to be engrafted on its margin. The flowers are small, sessile, green, and arranged in spiral lines upon the cylindrical receptacle. In Norfolk and other places, where the plant grows most abundantly, the powdered root is a domestic remedy for the ague. Its pleasant, cinnamon-like scent has introduced it to the notice of perfumers, who employ it in the manufacture of tooth and hair powders. At Constantinople the Turks use it candied as a preservative against contagion. The floor of Norwich cathedral is always strewed with the leaves of this plant upon festival days, which, being trodden upon, perfume the whole building.

GENUS CCX. JUNCUS. *Rush.*

Nat. Order. JUNCEÆ.

GEN. CHAR. *Perianthium* inferior, of 6 segments, glumaceous. *Capsule* 3-celled, 3-valved, with loculicidal dehiscence. *Seeds* numerous, attached to the dissepiments.

The plants of this genus can scarcely be mistaken; their rigid habit, linear, fistular, or channeled foliage, and style of growth being familiar even to the casual observer. Rushes are met with in moist barren soil in most parts of the world, but chiefly abound in cold and temperate climates. The almost utter worthlessness of the species in human economy is proverbial, but in that of nature they form an important series. Vegetating where few other plants can find subsistence, they assist in binding the loose sand upon the sea-shore, and cover the bleak and barren heath and moor with a verdure that without them must be wanting. In these situations they serve by their thick tufts of leaves to retain the light particles of richer soil which are washed by the rains from parts more elevated, adding to the collection by their own annual decay, until the unwholesome swamp or useless sand abounds with the necessary materials of fruitfulness and cultivation. To the botanist the *Junci* and their allies are interesting as constituting a group transitional between the strictly Glumaceous and the Liliaceous orders.

* *Leafless, or with leaves resembling stems.*

JUNCUS MARITIMUS. *Lesser Sharp Sea-Rush.* TAB. **496.**

Stems naked, terete; barren ones, or leaves, sharp-pointed. Panicle terminal, proliferous. Outer bractea spinous. Segments of the perianthium equal; the length of the oblong capsule.

Juncus maritimus, *E. B.* 1725. *Smith* II. 159. *Lindley* 273. *Hooker ed.* 2. 161. *ed.* 3. 165.

Salt marshes and the muddy or sandy banks of tide rivers are the habitats of this species, which, though generally abundant where it does grow, may be regarded as one of limited distribution. It is a perennial, and flowers in August. Formerly considered a variety of the next species, but too evidently distinct to admit of their being confounded.

JUNCUS ACUTUS. *Great Sharp Sea-Rush.* TAB. **497.**

Stems naked, terete; barren ones, or leaves, sharp-pointed. Panicle terminal, compound, aggregate. Bracteæ spinous. Capsules roundish, bluntly acuminated; twice the length of the equal segments of the perianthium.

Juncus acutus, *E. B.* 1614. *Smith* II. 158. *Lindley* 273. *Hooker ed.* 2. 162. *ed.* 3. 165.

Grows on sandy sea-shores, and sometimes accompanies the preceding, but is a much rarer plant, and chiefly confined to our western coasts. Its more stately habit, richer green hue, broader and more dense panicles, and above all the large size of its capsules, at once distinguish it. The roots are perennial, running deep into the sand. Flowers in July. The largest of the genus, growing to the height of 5 or 6 feet. It is common on the shores of Greece, and is probably the species which Homer had in view as furnishing spears for the combatants in his celebrated mock-heroic poem of the Frogs and Mice.

JUNCUS CONGLOMERATUS. *Common Rush.* TAB. **498.**

Stems naked, faintly striated, soft. Panicle lateral, dense, globose. Segments of the perianthium nearly equal; as long as the abrupt capsule. Stamens 3.

Juncus conglomeratus, *E. B.* 835. *Smith* II. 160. *Lindley* 273. *Hooker ed.* 2. 161. *ed.* 3. 164.

Common in moist ground throughout the kingdom. Perennial. Flowers in July. The compactness of its panicle forms the chief distinction between it and the following.

JUNCUS EFFUSUS. *Soft Rush.* TAB. **499.**

Stems naked, very faintly striated, soft. Panicle lateral, loose, very much branched. Segments of the perianthium equal; rather longer than the obtuse capsule.

Juncus effusus, *E. B.* 836. *Smith* II. 162. *Lindley* 273. *Hooker ed.* 2. 160. *ed.* 3. 164.

Equally common with the last in moist boggy places, and flowering about the same time; its loose spreading inflorescence constituting almost the only distinction in the absence of the second series of stamens, which often occurs in this, as it does constantly in *J. conglomeratus*. The stems of both species are employed for making mats and chair-bottoms, and their pith as wicks for the candles, thence called *rushlights*.

JUNCUS GLAUCUS. *Hard Rush.* TAB. **500.**

Stems naked, glaucous, rigid, deeply striated. Panicle lateral, diffuse. Segments of the perianthium nearly equal; longer than the elliptical capsule.

Juncus glaucus, *E. B.* 665. *Smith* II. 160. *Lindley* 273. *Hooker ed.* 2. 160. *ed.* 3. 163.

A common plant in wet pastures and moist waste ground. In habit it nearly resembles *J. effusus*, and was confounded with it by Linnæus and others, but is readily known by its more slender, wiry stems and glaucous hue. The harshness of its texture renders it inapplicable to the purposes for which the two preceding species are so valuable. It is a perennial, flowering in July.

JUNCUS FILIFORMIS. *Thread Rush.* TAB. **501.**

Stems naked, filiform. Panicle lateral, below the middle of the stem, simple, few-flowered. Bractea taper-pointed. Segments of the perianthium nearly equal; longer than the almost globular capsule.

Juncus filiformis, *E. B.* 1175. *Smith* II. 162. *Lindley* 274. *Hooker ed.* 2. 161. *ed.* 3. 164.

One of our rarer species, growing only on the stony margins of the lakes of Cumberland and Westmoreland, and among the Highlands of Scotland. A creeping-rooted perennial, with smooth slender stems, 10 or 12 inches high, often drooping with their own weight. Flowers in July and August. Remarkable for the exceeding elongation of the stem above the panicle.

JUNCUS Balticus. *Baltic Rush.* Tab. **501***.

Stems naked, rigid, obscurely striated. Panicle lateral, erect, branched. Segments of the perianthium nearly equal, acute, as long as the elliptical capsule.

Juncus Balticus, *E. B. Supp.* 2621. *Hooker ed.* 2. 161. *ed.* 3. 164. Juncus arcticus, *Smith* II. 163. *Lindley* 274.

Perennial. Flowers in July. A creeping-rooted species, met with on sandy sea-shores, and on the banks of rivers a few miles inland, in several parts of Scotland. The flowers are dark brown with a pale line down the middle of each segment.

** *Leaves distinct. Stems often leafy.*

JUNCUS acutiflorus. *Sharp-flowered Jointed Rush.* Tab. **502**.

Stems leafy. Leaves slightly compressed, internally jointed. Panicle repeatedly dichotomous, with membranous bracteæ. Segments of the perianthium unequal, bristle-pointed; shorter than the taper beak of the capsule.

Juncus acutiflorus, *E. B.* 2143. *Smith* II. 174. *Lindley* 275. *Hooker ed.* 2. 162. *ed.* 3. 165. Juncus articulatus, *E. B.* 238.

Very common in moist pastures, woods, and on the borders of ponds, where it may be found in flower through June and July. The stems are from 1 to 2 feet high, being erect or but slightly inclining towards the base, except when the plant grows in or near the water, when they are often decumbent and rooting at the joints. The flowers are greenish brown. Capsules pale brown. Perennial.

JUNCUS lampocarpus. *Shining-fruited Jointed Rush.* Tab. **503**.

Stems leafy, compressed. Leaves with internal phragmata, compressed. Panicle compound, spreading, somewhat forked. Inner segments of the perianthium bordered; rather shorter than the ovate, coloured, highly polished capsule.

Juncus lampocarpus, *E. B.* 2143. *Smith* II. 175. *Lindley* 275. *Hooker ed.* 2. 162. *ed.* 3. 165.

Equally common with the last in similar situations. Its more elongated inflorescence, larger flowers, and dark brown glossy capsules especially distinguish it. In its other features and in habit it accords with *J. acutiflorus*. Flowers in July and August. Perennial.

JUNCUS nigritellus. *Black-headed Jointed Rush.* Tab. **503***.

Stems leafy. Leaves with internal partitions, awl-shaped, cylindrical. Clusters few, many-flowered. Segments of the perianthium bordered, lanceolate, acute; shorter than the elliptical, bluntish capsule.

Juncus nigritellus, *E. B. Supp.* 2643. *Smith* II. 177. Juncus polycephalus, *Lindley* 276. Juncus lampocarpus β, *Hooker ed.* 2. 162. *ed.* 3. 166.

The near approach in structure of many species of this genus, and the changes to which they are liable from soil and situation, render it difficult to avoid the substitution of varieties; but the cylindrical leaves, scanty panicles, and many-flowered clusters, added to the more elongated capsules of this plant, are certainly in favour of its being distinct from *J. lampocarpus*. It is a creeping-rooted perennial, native of marshy spots in the Highlands of Scotland. Flowers in August.

JUNCUS OBTUSIFLORUS. *Blunt-flowered Jointed Rush.* TAB. **504.**

Stem and leaves cylindrical, both with internal partitions. Panicle often compounded; its branches divaricated and reflexed. Segments of the perianthium equal, obtuse; as long as the oval, trigonous capsule.

Juncus obtusiflorus, *E. B.* 2144. *Smith* II. 176. *Lindley* 276. *Hooker ed.* 2. 162. *ed.* 3. 166.

Not unfrequent in marshy places, flowering in August. This is the most truly distinct of all the articulated species, and it seems surprising that it should ever have been made a mere variety of the old *J. articulatus*, prominently charactered as it is by the inflorescence, and the internal phragmata of the stem.

JUNCUS ULIGINOSUS. *Lesser Bog Jointed Rush.* TAB. **505.**

Stem leafy, often swollen at the base. Leaves bristle-shaped, channeled. Panicle irregular. Segments of the perianthium equal; nearly the length of the obtuse capsule.

Juncus uliginosus, *E. B.* 801. *Smith* II. 169. *Lindley* 275. *Hooker ed.* 2. 162. *ed.* 3. 166. Juncus bulbosus, *Linn.*

A plant of very variable habit. Our figure represents its appearance when growing in rather a dry situation, where it seldom rises higher than 3 or 4 inches, and becomes somewhat bulbous at the base; but it is sometimes a procumbent plant, especially near the water, and presents so many variations in size and aspect that it is often difficult to establish its identity. It is a perennial, frequent on moist, sandy, or turfy heaths, and flowers in June and July.

JUNCUS COMPRESSUS. *Round-fruited Rush.* TAB. **506.**

Stem erect, compressed; leafy below. Leaves linear, incurved at the edges. Panicle terminal, subcymose; shorter than the bractea. Capsule roundish ovate; longer than the obtuse segments of the calyx.

Juncus bulbosus, *E. B.* 934. Juncus compressus, *Smith* II. 165. *Lindley* 274. *Hooker ed.* 2. 163. *ed.* 3. 167.

Not unfrequent in marshes and moist meadows. Perennial, with creeping roots, and erect stems generally about 10 or 12 inches high. Flowers in July and August.

Juncus cœnosus of Mr. Bicheno, *E. B. Supp.* 2680, can only be regarded as a maritime variety of this species. See Tab. 506*.

JUNCUS Gesneri. *Slender Spreading Rush.* Tab. **507.**

Stem naked. Leaves slightly channeled. Panicle dichotomous, shorter than the bractea. Flowers solitary. Segments of the perianthium lanceolate-acuminate, 3-ribbed; longer than the ovate capsule, the valves of which are emarginate.

Juncus gracilis, *E. B.* 2174. Juncus Gesneri, *Smith* II. 167. *Lindley* 274. Juncus tenuis, *Hooker ed.* 2. 164. *ed.* 3. 167.

A very rare species, introduced as a British plant in the first edition of this work, having been found by Mr. G. Don in marshy ground among the mountains of Clova, Angusshire. Flowers in July. Perennial.

JUNCUS bufonius. *Toad Rush.* Tab. **508.**

Stem leafy. Leaves angular, filiform, channeled. Panicle forked, racemose; about as long as the bractea. Flowers solitary. Segments of the perianthium lanceolate, taper-pointed, 2-ribbed; longer than the elliptical capsule, whose valves are pointed.

Juncus bufonius, *E. B.* 802. *Smith* II. 168. *Lindley* 274. *Hooker ed.* 2. 164. *ed.* 3. 168.

Frequent on moist sandy heaths, and all kinds of marshy places, especially such as are overflowed during the winter. It is a low annual plant with fibrous roots, and flowers copiously throughout July and August. Its pale green hue renders it conspicuous from the rest of the species.

JUNCUS trifidus. *Three-leaved Rush.* Tab. **509.**

Stem naked. Radical leaves few. Bracteæ 3, terminal, leafy, channeled. Flowers 1 to 3.

Juncus trifidus, *E. B.* 1482. *Smith* II. 163. *Lindley* 274. *Hooker ed.* 2. 163. *ed.* 3. 167.

Alpine bogs and the margins of rocky rills in the Highlands of Scotland produce this remarkable species. The root is creeping and perennial, seldom producing more than 1 or 2 leaves from each node, the others being abortive in the form of membranous sheaths at the base of the stem, which is 4 or 5 inches high. The capsule is elliptical, without angles, ending in a sharply-pointed, furrowed beak. Flowers in July.

JUNCUS castaneus. *Clustered Alpine Rush.* Tab. **510.**

Stem leafy, solitary, rounded. Leaves folded, keeled, flat; at the base sheathing. Flowers in terminal heads, which are mostly in pairs, one a little higher than the other, many-flowered, with leafy bracteæ. Capsules ovate, bluntly 3-cornered, twick as long as the perianthium.

Juncus castaneus, *E. B.* 900. *Smith* II. 173. *Lindley* 275. *Hooker ed.* 2. 163. *ed.* 3. 166.

A rare plant in the North of England and on the Highlands of Scotland, where it grows in moist micaceous soil, increasing by lateral scions, which shoot out around the parent stem and throw up new ones from their extremities. The stem is hollow, from 6 to 12 inches high; and the leaves, whose folded sides are very thin and membranaceous, present a few distant, internal partitions. Flowers in July. Perennial.

JUNCUS SQUARROSUS. *Moss Rush. Goose-corn. Heath Rush.* TAB. **511.**

Stems leafless. Leaves numerous, rigid, setaceous, grooved. Panicle terminal, compound. Capsules elliptical-ovate. Bluntly trigonous.

Juncus squarrosus, *E. B.* 933. *Smith* II. 164. *Lindley* 274. *Hooker ed.* 2. 164. *ed.* 3. 168.

In boggy spots, upon the most barren sandy heaths, this species often abounds, its thick tufts forming almost the only vegetation. Few plants are less promising to the agriculturist, who might with equal profit plough the sand upon the sea-shore as the district where it grows. It is perennial, with wiry stems 6 inches to a foot in height, flowering in June and July. The flowers are dark brown, with a pale filmy border to each segment. Bracteæ large, lanceolate, membranaceous, light brown or reddish.

JUNCUS CAPITATUS. *Dense-headed Rush.* TAB. **511*.**

Stems erect, unbranched, leafy at the base. Leaves bristle-shaped, channeled. Flowers in 1 or 2 terminal and lateral heads. Stamens 3? Perianthium twice as long as the truncated capsule; the outer segments keeled, bristle-pointed.

Juncus capitatus, *E. B. Supp.* 2644. *Smith* II. 171. *Lindley* 275. *Hooker ed.* 2. 165. *ed.* 3. 168.

This pretty little Rush is admitted into the British Flora on the authority of Mr. Hudson, who gathered it in the island of Jersey. The sharp bristle-pointed perianth, and short blunt capsule, are its leading features of distinction, unless its flowers should be found constantly triandrous. Considered annual. Flowers from May to July.

JUNCUS BIGLUMIS. *Two-flowered Rush.* TAB. **512.**

Stem erect, leafy at the base. Leaves linear, compressed, with sheathing bases. Flowers 2, terminal, one of them pedicelled; unilateral; surmounted by a leafy bractea. Capsule turbinate, retuse.

Juncus biglumis, *E.B.* 898. *Smith* II. 172. *Lindley* 275. *Hooker ed.* 2. 165. *ed.* 3. 168.

A rare or at least very local plant, being almost confined to the Breadalbane mountains in Scotland. It is a perennial, its slender fibrous roots running deep into the boggy soil of small alpine rills. Flowers in August. From 2 to 4 inches high.

JUNCUS TRIGLUMIS. *Three-flowered Rush.* TAB. **513.**

Stem erect, leafy below the middle. Leaves linear, channeled, bitubular, with sheathing bases. Flowers (mostly) 3, terminal, erect; as long as the membranaceous bracteæ. Capsule elliptical, acute.

Juncus triglumis, *E. B.* 899. *Smith* II. 172. *Lindley* 275. *Hooker ed.* 2. 165. *ed.* 3. 168.

Grows in similar situations with the preceding, but much more frequent, being plentiful about the little rills and boggy places among the mountains of England, Wales, and Scotland. The number of its flowers varies, though generally 3, and small two-flowered specimens have been mistaken for *J. biglumis*; but the short membranaceous bracteæ, erect parallel and sessile flowers, pointed capsule, and channeled bitubular leaves, sufficiently distinguish this species. It is in general of larger size, rising 6 or 8 inches high, and grows in tufts, which the preceding does not. Perennial. Flowers in July and August.

GENUS CCXI. LUZULA. *Hairy-Rush.*

Nat. Order. JUNCEÆ.

GEN. CHAR. *Perianthium* inferior, of 6 segments, glumaceous. *Capsule* 1-celled, 3-seeded, 3-valved. *Seeds* at the bottom of the cell.

The plants of this genus differ so little in general aspect from those of the last, that they were originally confounded under the same denomination; but their soft, dilated, flat, hairy foliage, and more especially the structure of the pericarpium, afford substantial reason for their separation. All the species are perennial.

LUZULA SYLVATICA. *Great Wood Hairy-Rush.* TAB. **514.**

Panicle cymose, doubly compound. Peduncles elongated, about 3-flowered. Segments of the perianthium aristate, as long as the pointed capsule. Crest of the seed obsolete.

Juncus sylvaticus, *E. B.* 737. Luzula sylvatica, *Smith* II. 181. *Lindley* 276. *Hooker ed.* 2. 165. *ed.* 3. 169.

The largest of the genus, often reaching 2 feet or more in height. Woods and thickets are its favourite habitats, but the side of the hill or mountain is not unfrequently clothed by it; as where once established it quickly covers the ground with a dry elastic mat, to the exclusion of most other plants. The erect panicle and clustered flowers readily distinguish it from *L. pilosa*, the only native species with which it is at all liable to be confounded. Flowers in May and June.

LUZULA PILOSA. *Common Wood Hairy-Rush.* TAB. **515.**

Panicle cymose, divaricate, reflexed. Peduncles 1-flowered, bent back. Segments of the perianthium acuminate; shorter than the obtuse capsule. Seeds with a curved appendage at the summit.

Juncus pilosus, *Linn.* *E. B.* 736. Luzula pilosa, *Smith* II. 178. *Lindley* 276. *Hooker ed.* 2. 166. *ed.* 3. 169.

More common than the last, being frequent in woods and shady places, where it flowers from the middle of March to May.

LUZULA FORSTERI. *Narrow-leaved Wood Hairy-Rush.* TAB. **516.**

Panicle cymose, erect. Peduncles 1-flowered, upright. Segments of the perianthium acuminate; longer than the pointed capsule. Crest of the seed straight, obtuse.

Juncus Forsteri, *E. B.* 1293. Luzula Forsteri, *Smith* II. 179. *Lindley* 276. *Hooker ed.* 2. 166. *ed.* 3. 169.

This was long considered as a variety of *L. pilosa*, and first established as a distinct species by Mr. E. Forster, whose name it bears. Grows in similar situations with the preceding, which it frequently accompanies, but seems most partial to calcareous or gravelly soils, and flowers later, viz. in May and June. Readily known by its more slender habit and erect panicles.

LUZULA CAMPESTRIS. *Field Hairy-Rush.* TAB. **517.**

Panicle of 3 or 4 sessile or pedunculated clusters. Capsule obovate, obtuse, or scarcely pointed; shorter than the acuminate segments of the perianthium. Seeds stalked, without a crest.

Juncus campestris, *Linn.* *E. B.* 672. Luzula campestris, *Smith* II. 181. *Lindley* 276. *Hooker ed.* 2. 166. *ed.* 3. 169.

Very frequent on heaths and dry barren pastures, and is rendered conspicuous in the flowering season, April and May, by its large sulphur-coloured anthers contrasted with the dark copper brown of the perianth. The near resemblance of the hairy foliage, and habit, of this and the other common species, coupled with the variations to which they are liable, renders a careful notice of the parts of fructification indispensable.

Luzula congesta, E. B. Supp. 2718, seems to be only a variety of this species, belonging to turfy bogs; distinguished chiefly by its narrower leaves, taller stems, and more densely clustered flowers. See Tab. 517*.

LUZULA SPICATA. *Spiked Mountain Hairy-Rush.* TAB. **518.**

Leaves slender, somewhat channeled, recurved; hairy only at the margins of the sheaths. Panicle spike-like, drooping, compound. Segments of the perianthium mucronate; about as long as the roundish, or slightly elliptical, scarcely pointed capsule. Seeds obsoletely crested.

Juncus spicatus, *E. B.* 1176. Luzula spicata, *Smith* II. 182. *Lindley* 277. *Hooker ed.* 2. 167. *ed.* 3. 170.

An alpine species, being met with only on the highest mountains in the North of England and Scotland. Stem slender, bearing 2 or 3 remote sheathing leaves, 6 or 8 inches high. Flowers in July.

LUZULA ARCUATA. *Curved Mountain Hair-Rush.* TAB. **518*.**

Leaves channeled, hairy. Panicle subumbellate, of few 3–5-flowered clusters, on long drooping peduncles. Bracteæ membranaceous, fringed. Capsule ovato-globose; shorter than the broadly lanceolate leaflets of the perianthium.

Luzula arcuata, *E. B. Supp.* 2688. *Smith* II. 183. *Lindley* 277. *Hooker ed.* 2. 166. *ed.* 3. 170.

" The smallest of our *Luzulæ,* and one of the rarest and most distinct." (*Professor Hooker.*) Flowers in July. An inhabitant only of the highest granitic mountains of Scotland, as Cairngorum, and others of the Grampian chain; growing upon the summits, upwards of 4000 feet above the level of the sea, and amongst the comminuted rock, where scarcely any other plant can exist.

GENUS CCXII. NARTHECIUM. *Bog-Asphodel.*

Nat. Order. JUNCEÆ.

GEN. CHAR. *Perianthium* inferior, petaloid, with 6 linear-lanceolate, spreading segments. *Filaments* woolly. *Ovarium* pyramidal. *Capsule* 3-celled, 3-valved. *Seeds* numerous, with an appendage at each extremity.

Plants with showy yellow flowers, and an Iris-like habit; strongly contrasting with the two preceding genera, though now generally referred to the same natural group, between which and *Asphodeleæ* they form an evident link.

NARTHECIUM OSSIFRAGUM. *Lancashire Bog-Asphodel.* TAB. **519.**

Leaves equitant, linear. Raceme erect. Pedicels with bracteæ above the middle. Stamens shorter than the perianthium.

Narthecium ossifragum, *E. B.* 535. *Smith* II. 151. *Lindley* 277. *Hooker ed.* 2. 159. *ed.* 3. 163. Anthericum ossifragum, *Linn.*

Black turfy bogs, and mountain moors, are frequently ornamented with the gay golden flowers of the Bog-Asphodel, which expand in succession through July and August. It is a creeping-rooted perennial, with stiff, round stems, decumbent at the base, and clothed with numerous bracteæ. Leaves uniform, all radical, somewhat arcuate, and strongly striated with parallel veins. Perianth permanent, as in *Juncus* and *Luzula,* closing around the base of the ripening capsule.

ORDER II. DIGYNIA.

GENUS CCXIII. OXYRIA. *Mountain-Sorrel.*

Nat. Order. POLYGONEÆ.

GEN. CHAR. *Calyx* of 2 leaves. *Corolla* of 2 petals, rather larger than the calyx. *Styles* reflexed. *Nut* 2-edged, each with a broad membranous margin. *Embryo* in the centre, inverted.

A single species only is known to exist of this genus, which was until lately confounded with *Rumex*, from which it chiefly differs in the situation of the embryo and the binary arrangement of the floral organs.

OXYRIA RENIFORMIS. *Kidney-leaved Mountain-Sorrel.* TAB. **520.**

Stems nearly naked. Leaves reniform, generally with an obtuse sinus at the apex.

Rumex digynus, *Linn.* *E. B.* 910. Oxyria reniformis, *Smith* II. 188. *Lindley* 211. *Hooker ed.* 2. 167. *ed.* 3. 170.

The Mountain-Sorrel inhabits moist clefts of rocks and boggy spots about the summits of the higher mountains in the North of England, Wales, and Scotland. The stems are 6 or 8 inches high, with rarely more than a single leaf attached, and in general leafless. The leaves have long petioles, at the base of which are thin membranaceous stipulæ. The inflorescence is paniculate, with alternate branches, bearing the flowers in small clusters rising from the axils of minute, ovate bracteæ. Wings of the fruit with crimson edges. Flowers in June and July. Perennial. The herb is agreeably acid.

ORDER III. TRIGYNIA.

GENUS CCXIV. RUMEX. *Dock and Sorrel.*

Nat. Order. POLYGONEÆ.

GEN. CHAR. *Calyx* 3-parted. *Corolla* of 3 petals. *Styles* reflexed. *Stigmas* multifid. *Nut* triquetrous, covered by the enlarged petals, which often bear tubercles. *Embryo* on one side, inverted.

This is an extensive genus of herbaceous plants, with alternate leaves, and greenish, inconspicuous flowers; natives of the cooler or temperate regions of both hemispheres. In this country they form no inconsiderable portion of the vegetation of neglected meadows and pastures in the low lands, and abound on waste places, hedge-banks, and road-sides; but, useless as they are abundant, their large coarse foliage and strong spreading roots hindering the growth of more valuable herbage, they may rank among the most noxious weeds which perplex the careful agriculturist. They are nearly allied both in habit and structure to the *Rheums* (Rhubarbs) of Asia, and approach them in properties; the root of one species especially was formerly employed as a substitute for the officinal Rhubarb.

The fructification of the whole tribe is liable to variation from the normal order, especially in the development of the stamens, which are often imperfect or even wholly wanting in some of the flowers. Our native species are all perennial, and are usually disposed in two sections.

* *Flowers perfect or monœcious. Herb not acid.* Lapathum. Dock.

RUMEX SANGUINEUS. *Bloody-veined Dock.* TAB. **521.**

Leaves lanceolate, somewhat cordate. Flowering branches alternate, simple, straight. Clusters distant, few-flowered; the upper ones without leaves. Enlarged petals oblong, entire; one or two bearing a large red tubercle on its midrib.

Rumex sanguineus, *E. B.* 1533. *Smith* II. 190. *Lindley* 210. *Hooker ed.* 2. 168. *ed.* 3. 172.

Woods, shady pastures, and road-sides produce this species, which rises to the height of 2 or 3 feet, and flowers in July. The bright red colour of the veins, from which the name has been derived, is in a very common variety of this plant wanting. It then becomes the *R. Nemolapathum* of Linnæus, and of Lindley 210, and is not very clearly distinct from the following species.

RUMEX ACUTUS. *Sharp-leaved Dock.* TAB. **522.**

Lower leaves cordato-oblong; upper ones lanceolate; pointed. Flowering branches alternate, simple, zigzag. Clusters distant, many-flowered, leafy. Enlarged petals oblong, acute, obscurely toothed; all bearing tubercles.

Rumex acutus, *E. B.* 724. *Smith* II. 192. *Hooker ed.* 2. 168. *ed.* 3. 172. Rumex glomeratus, *Sprengel*, *Lindley* 210.

Frequent in watery places and waste ground, flowering in July. It so nearly approaches the green-veined variety of the last, as to be with difficulty recognised apart. The crooked flowering branches, leafy whorls, and petals all tuberculated, form its only distinguishing features. The root is employed as a dye, and communicates with different mordants various shades of straw-colour, olive, and even bright green.

RUMEX CRISPUS. *Curled Dock.* TAB. **523.**

Leaves lanceolate, undulated, acute. Flowering branches alternate. Clusters somewhat crowded, many-flowered; the upper ones leafless. Enlarged petals ovato-cordate, entire, or crenulate, acute; one only bearing a large coloured tubercle.

Rumex crispus, *E. B.* 1998. *Smith* II. 191. *Lindley* 211. *Hooker ed.* 2. 167. *ed.* 3. 171.

One of the most common of the English Docks, and most obnoxious of weeds, growing in all soils and situations, from the waste to the rich pasture and cultivated field. In its most luxuriant form it is, however, a stately and even an elegant plant. Its curled or deeply waved, crenated leaves, and large reticulated ovato-cordate petals, distinguish it from all others, except the following, which, though certainly the true *R. aquaticus* of Linnæus, we insert with doubt as a distinct species. Flowers in June and July. 2 or 3 feet high.

RUMEX AQUATICUS. *Grainless Water Dock.* TAB. **523*.**

Leaves lanceolate; the lower ones cordato-oblong, crisped and waved. Clusters crowded, many-flowered, mostly leafless. Enlarged petals broadly cordate, reticulated; without tubercles.

Rumex aquaticus, *Linn.* *E. B. Supp.* 2698. *Hooker ed.* 2. 168. *ed.* 3. 171. (*E. B.* 2104, is *R. Hydrolapathum* of Hudson: see Tab. 528. of this series.)

First distinguished as a separate and undescribed British species by Professor Hooker and Mr. Goldie, the latter of whom found it growing in moist places near Ayr in Scotland. We find a plant corresponding with the figure and description in the second volume of the Supplement to English Botany, on the Thames' side near Woolwich, and if really distinct from our *R. crispus* it is probably not very uncommon. The broader foliage, and more oblate petals without tubercles, the base of the midrib being only very slightly swollen, seems its most important features. Flowers in July.

RUMEX PRATENSIS. *Meadow Dock.* TAB. **523**.**

Leaves oblong-lanceolate, wavy. Clusters distinct, many-flowered; leafless above. Enlarged petals unequal, toothed at the base, with an entire triangular point; one principally tuberculated.

Rumex pratensis, *Mertens.* *Borrer* in *E. B. Supp.* 2757. *Hooker ed.* 3. 171.

In marshes and watery places this is probably not uncommon, although frequently overlooked from its resemblance to *R. crispus.* Especially charactered by its unequal, distinctly toothed valves or petals, separate clusters, and broader, less curled leaves. Flowers in June and July.

RUMEX OBTUSIFOLIUS. *Broad-leaved Dock.* TAB. **524.**

Root-leaves ovato-cordate, obtuse. Clusters many-flowered, leafless above. Enlarged petals oblong-ovate, toothed at the lower part; one only in general bearing a tubercle.

Rumex obtusifolius, *E.B.* 1999. *Smith* II. 192. *Lindley* 210. *Hooker ed.* 2. 169. *ed.* 3. 173.

A more troublesome weed than *R. crispus*, and not less frequent. Flowers in July. The stems roughish above, the broad and obtuse radical leaves, smaller flowers, and oblong petals, entire at the upper part, with 3 sharp, prominent teeth at each side near the base, distinguish it.

RUMEX ALPINUS. *Alpine Dock. Monk's Rhubarb.* TAB. **524***.

Leaves broadly cordate, ample, very obtuse; upper ones ovato-lanceolate. Clusters many-flowered, leafless, rather crowded. Flowers monœcious. Enlarged petals cordate, reticulated, obscurely toothed at the margin, or crenulated; one only bearing a small oblong tubercle.

Rumex alpinus, *Linn. E.B. Supp.* 2694. *Hooker ed.* 2. 168. *ed.* 3. 172. Rumex cordifolius, *Horn.*

Found only in the Highlands of Scotland. The root was formerly used as a cathartic; and from its being cultivated for that purpose in the monastic gardens, arose the vulgar name, which its broad, wrinkled leaves and Rhubarb-like habit and stature will further warrant. Flowers in July, growing to the height of 4 feet or more.

RUMEX PULCHER. *Fiddle Dock.* TAB. **525.**

Stem spreading. Root-leaves panduriform. Clusters distant, 1-sided, few-flowered, axillary. Enlarged petals ovate, deeply toothed; one bearing a larger tubercle than the others.

Rumex pulcher, *E. B.* 1576. *Smith* II. 193. *Lindley* 210. *Hooker ed.* 2. 169. *ed.* 3. 172.

Dry gravelly pastures, road-sides and waste grounds produce this very common species, which is easily recognised by its much-branched, straggling stems, distinct axillary clusters; and by its leaves being more or less contracted below the middle, so as to resemble the body of a guitar or violin. Flowers in August.

RUMEX PALUSTRIS. *Tawny Marsh Dock.* TAB. **526.**

Leaves linear-lanceolate, somewhat crisped and crenated, acute. Clusters distant, axillary. Enlarged petals lanceolate, with 3 short teeth on each side; all bearing tubercles.

Rumex palustris, *E. B.* 1932. *Smith* II. 194. *Lindley* 210. *Hooker ed.* 2. 169. *ed.* 3. 173.

Not unfrequent in marshy places, flowering in July. By some botanists regarded a variety of the following, but differing in habit, in the form of its leaves, and especially in the number and length of the teeth of the fruit-valves or enlarged petals.

RUMEX MARITIMUS. *Golden Dock.* TAB. **527.**

Lower leaves ovato-lanceolate, entire, acute, not waved; upper ones linear-lanceolate. Clusters very dense, crowded, axillary. Enlarged petals deltoid, fringed on each side with about 4 very long, setaceous, almost spiny teeth; each with an oblong tubercle.

Rumex maritimus, *Linn.* *E. B.* 725. *Smith* II. 193. *Lindley* 210. *Hooker ed.* 2. 169. *ed.* 3. 173. R. aureus, *Withering.*

Grows in marshes near the sea or tide rivers, seldom very far inland. The bright golden hue of the fructification, crowded clusters, and more especially the great length of the teeth, which equals or even exceeds that of the valves themselves, constitute the most important features of distinction; added to which the leaves are destitute of wave or serrature, which does not occur in more than one other native species, and that totally distinct in the foregoing characters. Flowers in July and August.

RUMEX HYDROLAPATHUM. *Great Water Dock.* TAB. **528.**

Leaves lanceolate, acute; lower ones somewhat heart-shaped at the base. Clusters crowded, mostly leafless. Enlarged petals ovate-oblong, entire; unequally tubercled.

Rumex aquaticus, *E. B.* 2104. Not of Linnæus. Rumex Hydrolapathum, *Smith* II. 195. *Lindley* 211. *Hooker ed.* 2. 167. *ed.* 3. 171.

This is the largest of our Docks, growing from 3 to 5 feet high, with the lower leaves a foot and a half in length. It is common in ditches and on the banks of rivers, and generally grows in the water. The root, which is very large and spreading, is powerfully astringent, and was famed as an antiscorbutic, but has long been disused. Flowers in July and August.

** *Flowers diœcious. Herb acid.* Acetosa. Sorrel.

RUMEX ACETOSA. *Common Sorrel.* TAB. **529.**

Leaves oblong, arrow-shaped. Enlarged petals orbicular-cordate, reticulated; slightly tuberculated.

Rumex Acetosa, *E. B.* 127. *Smith* II. 196. *Lindley* 211. *Hooker ed.* 2. 169. *ed.* 3. 173.

A frequent plant in meadows and pastures throughout the kingdom, flourishing in all soils and situations, and flowering in June and July. Its pleasant acid taste renders it an agreeable condiment and salad. In France it is cultivated as a potherb.

RUMEX ACETOSELLA. *Sheep's Sorrel.* TAB. **530.**

Leaves lanceolate, hastate. Enlarged petals ovate, without tubercles.

Rumex Acetosella, *E. B.* 1674. *Smith* II. 197. *Lindley* 211. *Hooker ed.* 2. 169. *ed.* 3. 173.

Equally common with the last, but in drier situations. It is a very variable plant in stature and foliage, but always smaller than the preceding, and sufficiently distinguished by the want of tubercles and the more elongated petals. In the decline of the year its leaves change to a bright red colour, especially when growing in exposed pastures and heaths. Flowers from May to July.

GENUS CCXV. SCHEUCHZERIA.

Nat. Order. JUNCAGINEÆ.

GEN. CHAR. *Perianthium* of 6 pieces, herbaceous, permanent. *Anthers* elongated. *Capsules* 3, inflated, 2-valved, 1-seeded.

Only a single species is known. A plant of curious structure, with rush-like leaves and greenish flowers.

SCHEUCHZERIA PALUSTRIS. *Marsh Scheuchzeria.* TAB. **531.**

Scheuchzeria palustris, *E. B.* 1801. *Smith* II. 199. *Lindley* 252. *Hooker ed.* 2. 170. *ed.* 3. 174.

A very rare plant, first introduced as a native in the preceding edition of the English Botany, having been discovered by the Rev. J. Dalton in Lakeby Car, near Boroughbridge, Yorkshire. It has since been found on Thorne Moor near Doncaster, and at Methven near Perth; always in spongy soil, which is its natural site in Lapland and Norway, where it abounds. Perennial. Flowers in July.

GENUS CCXVI. TRIGLOCHIN. *Arrow-grass.*

Nat. Order. JUNCAGINEÆ.

GEN. CHAR. *Perianthium* of 6 pieces, deciduous. *Anthers* sessile; lodged in the concave pieces of the perianthium, with their backs toward the pistil. *Capsules* 3–6, 1-seeded; united by a longitudinal receptacle, from which they usually separate at the base.

Herbaceous bog plants, with linear rush-like foliage and inconspicuous green flowers.

TRIGLOCHIN PALUSTRE. *Marsh Arrow-grass.* TAB. **532.**

Fruit 3-celled, nearly linear; tapering at the base. Root fibrous.

Triglochin palustre, *E. B.* 366. *Smith* II. 200. *Lindley* 252. *Hooker ed.* 2. 170. *ed.* 3. 174.

Not uncommon in boggy meadows. The leaves are all radical, sheathing at the base; fleshy and almost semicylindrical above. The scape rises from 6 to 10 inches high, terminating in a slender spike of small greenish flowers. The 3 capsules, separating from the base in maturity, resemble a three-barbed arrow-head, whence the generic name. Perennial. Flowers in August.

TRIGLOCHIN MARITIMUM. *Sea-side Arrow-grass.* TAB. **533.**

Fruit ovate, of 6 cells, not separating at the base.

Triglochin maritimum, *E. B.* 255. *Smith* II. 201. *Lindley* 252. *Hooker ed.* 2. 170. *ed.* 3. 174.

This, though as its name imports, a more local plant than the last, is not unfrequent; abounding in salt marshes, and on the muddy shores of large rivers as far as the salt tide reaches. In habit it somewhat resembles *T. palustre*, but the leaves are more fleshy, the spike of flowers larger and denser, and the 6-celled fruit at once distinguishes it. Flowers from May to August. Perennial.

GENUS CCXVII. TOFIELDIA. *Scottish Asphodel.*

Nat. Order. MELANTHACEÆ.

GEN. CHAR. *Perianthium* 6-parted, with 3 small calyx-like bracteæ at its base. *Stamens* glabrous. *Capsule* 3–6-celled; cells united at the base only, many-seeded.

Small herbaceous plants, growing in moist spongy soil in Europe and North America. They are all perennial, with equitant leaves and greenish white flowers.

TOFIELDIA PALUSTRIS. *Scottish Asphodel.* TAB. **534.**

Spike ovate. Stem smooth, filiform, nearly leafless. Petals obovate, obtuse. Germen 3-lobed.

Tofieldia palustris, *E.B.* 536. *Smith* II. 198. *Lindley* 264. *Hooker ed.* 2. 170. *ed.* 3. 173. Anthericum calyculatum, *Linn.*

An alpine species, not uncommon in mountainous districts, especially on the highland moors of Scotland, where it forms green patches on the black boggy soil, near rills and pools. It flowers in July and August. Stems from 2 to 6 inches high.

GENUS CCXVIII. COLCHICUM. *Meadow-Saffron.*

Nat. Order. MELANTHACEÆ.

GEN. CHAR. *Perianthium* tubular, long; limb campanulate, 6-parted, petaloid. *Stamens* inserted in the orifice of the tube; *anthers* versatile. *Capsule* 3-celled; cells united at the base only, many-seeded.

A genus of showy-flowered plants, with the habit of *Crocus*, but differing in the greater breadth of the foliage and in the structure of the fructification. The bulb, as it is usually though improperly called, is solid; it is a modification of a perennial stem, which instead of elongating upward in the ordinary form of that organ, remains in a condensed state below the soil, increasing by offsets in that situation, and is technically denominated a cormus. The flowers, which rise from a membranaceous spathe, are elevated only by the lengthened tube of the perianth, that answers the purpose of a pedunculus; but the germen, at first concealed within its base, eventually rises upon a stalk to the height of the leaves. A reddish purple, sometimes varying to white, is the only colour observed in the flowers of this genus.

COLCHICUM AUTUMNALE. *Common Meadow-Saffron.* TAB. **535.**

Leaves plane, lanceolate, erect. Segments of the perianthium oblong.

Colchicum autumnale, *E. B.* 133. *Smith* II. 202. *Lindley* 264. *Hooker ed.* 2. 171. *ed.* 3. 174.

This plant, well known for its medicinal qualities, grows very plentifully in moist, rich meadows and pastures in several parts of England. Its fine purple flowers appear in succession through September and October, but the leaves and the fertilized seed-bud do not show themselves above ground until the following spring; a wise provision of Nature for the preservation of the plant and its offspring during the winter season. An active principle called *veratrin*, peculiar to its natural order, abounds in every part of the *Colchicum*, rendering it in a recent state highly poisonous. The cormus is, however, a useful medicine in gout and rheumatism, when properly administered, and is said to be the basis of the celebrated "Eau médicinale"; its properties approach those of the Officinal Squill, but as a sedative it is more powerful.

A remarkable variety of this species is figured at Tab. 535*; *C. autumnale, flor. serotinis, E. B.* 1432. It is found near Devizes, Wiltshire, bearing its flowers and leaves together in the months of April and May; but the former are abortive in consequence of their tardy unseasonable development. The lengthened segments of the perianth, and its pale greenish hue, contrast strongly with the ordinary habit of the plant.

ORDER IV. HEXAGYNIA.

GENUS CCXIX. ACTINOCARPUS. *Star-fruit.*

Nat. Order. ALISMACEÆ.

GEN. CHAR. *Calyx* 3-leaved. *Petals* 3. *Germens* 6—8. *Capsules* combined at the base, spreading in a radiated form, 2-seeded. *Embryo* much curved.

Aquatic plants, separated from the next genus, *Alisma*, on account of the difference in the structure of their fruit. They are perennials, with white flowers.

ACTINOCARPUS DAMASONIUM. *Common Star-fruit. Star-headed Thrumwort.* TAB. **536.**

Capsules 6, subulate, compressed, longitudinally dehiscent. Leaves 5-nerved, oblong heart-shaped, floating.

Alisma Damasonium, *Linn.* *E.B.* 1615. *Smith* II. 204. *Lindley* 253. Actinocarpus Damasonium, *Brown.* *Hooker ed.* 2. 171. *ed.* 3. 175.

A native of pools and ditches in a gravelly soil in several parts of England, but most frequent in the counties around the metropolis. The leaves, which are all radical, float on the surface of the water; the flower-stems only rising above it, and bearing 2 or 3 lateral umbels of flowers, whose delicate white petals have a small yellow spot at the base. The fruit is the most conspicuous feature, resembling that of *Illicium anisatum,* the Star-Aniseed of the druggists. Flowers in June and July.

ORDER V. POLYGYNIA.

GENUS CCXX. ALISMA. *Water-Plantain.*

Nat. Order. ALISMACEÆ.

GEN. CHAR. *Calyx* 3-leaved. *Petals* 3. *Capsules* numerous, clustered, distinct, indehiscent, 1-seeded. *Embryo* much curved.

These are all water plants, with white or pale purplish flowers, and leaves mostly radical, with parallel veins. They resemble the last genus in habit, and are only to be distinguished by the numerous, distinct carpella, which are deciduous and do not open to discharge the seed. All perennial.

ALISMA PLANTAGO. *Greater Water-Plantain.* TAB. **537.**

Leaves all radical, ovate, acute. Scape whorled. Fruit depressed. Capsules obtusely triangular.

Alisma Plantago, *E.B.* 837. *Smith* II. 203. *Lindley* 253. *Hooker ed.* 2. 171. *ed.* 3. 175.

The broad, strongly ribbed leaves, and tall, branching scapes of this species are conspicuous on the borders of almost every ditch and pool throughout the island. The flowers, of a pale purplish colour, appear in July.

ALISMA RANUNCULOIDES. *Lesser Water-Plantain.* TAB. **538.**

Leaves all radical, linear-lanceolate. Scape umbellate. Fruit globose; capsules acute.

Alisma ranunculoides, *E.B.* 326. *Smith* II. 205. *Lindley* 253. *Hooker ed.* 2. 172. *ed.* 3. 176.

Less frequent than the preceding, requiring a turfy soil to vegetate in, and being rather a bog than a water plant. In habit it nearly resembles *A. Plantago*, but is well distinguished by its umbellate inflorescence and globular fruit. The pale purple flowers expand in August and September.

A variety with creeping runners, and scapes usually single-flowered, is found upon the margins of lakes in North Wales. See Tab. 538*. This is the *Alisma repens* of *Smith* II. 205, and of *Lindley* 253.

ALISMA NATANS. *Floating Water-Plantain.* TAB. **539.**

Herb floating and rooting. Leaves elliptical, obtuse. Flower-stalks simple. Capsules striated.

Alisma natans, *E.B.* 775. *Smith* II. 204. *Lindley* 253. *Hooker ed.* 2. 171. *ed.* 3. 174.

Lakes in alpine situations only afford this pretty species of *Alisma*, which grows in tolerable plenty in those of North Wales and Cumberland. The rooting base of the plant is always accompanied by a cluster of long linear-lanceolate scales, which may be regarded as abortive leaves. The flowers open in July and August, and are larger than those of the other British species, white, with a yellow spot at the base of each petal: they stand above the water on long purplish peduncles, of which two in general spring from each joint of the floating herb.

CLASS VII. HEPTANDRIA.

ORDER I. MONOGYNIA.

GENUS CCXXI. TRIENTALIS. *Chickweed Winter-green.*

Nat. Order. PRIMULACEÆ.

GEN. CHAR. *Calyx* of 7 leaves. *Corolla* rotate, in 7 deep segments, regular and flat. *Capsule* 1-celled with 7 valves, and many seeds on a fleshy, central, free receptacle. *Seeds* with a reticulated tunic.

A single species, belonging to this genus, is the only representative of the Linnæan class *Heptandria* in this country. The number of stamens in *Trientalis* is very inconstant, and with it that of the other parts of fructification vary likewise, in accordance with a law of equal development well known to the vegetable physiologist. A similar anomaly occurs in exotic genera of the same class; and the number 7, which is of rare occurrence in the organs of plants, may in all instances be regarded as the consequence of abortion of the units of a greater normal number, or of an effort to double the series of a lesser.

TRIENTALIS EUROPÆA. *European Chickweed Winter-green.* TAB. **540.**

Leaves oblong-ovate, entire; the lowermost very obtuse.
Trientalis europæa, *E. B.* 15. *Smith* II. 208. *Lindley* 185. *Hooker ed.* 2. 172. *ed.* 3. 176.

A rare plant in the North of England, growing in dry woods and on turfy heaths. In the Highlands of Scotland it is more common. It is a creeping-rooted perennial, sending up stems from 3 to 6 inches high, almost naked except at the apex, which bears a whorl of from 4 to 7 leaves, from whose axils one or more flowers arise upon slender, simple peduncles. The parts of fructification, though frequently 7, vary from 6 to 9, but are always accordant with each other. Flowers in June.

CLASS VIII. OCTANDRIA.

ORDER I. MONOGYNIA.

GENUS CCXXII. ŒNOTHERA. *Evening-Primrose.*

Nat. Order. ONAGRARIÆ.

GEN. CHAR. *Calyx* superior, tubular, deciduous, with a deeply 4-cleft limb; the segments of which cohere irregularly, and are reflexed. *Petals* 4. *Pollen* cohering by threads. *Capsule* 4-valved, many-seeded. *Seeds* naked.

A genus of hardy herbaceous plants, almost exclusively belonging to the Western hemisphere. They have alternate leaves, more or less toothed or pinnatifid, and generally yellow flowers; are destitute of active properties, and only valuable as ornaments of the garden. Of sixty known species, one only is a naturalized European.

ŒNOTHERA BIENNIS. *Common Evening-Primrose.* TAB. **541.**

Leaves ovate-lanceolate, toothed. Stem rough, somewhat hairy. Flowers sessile, in a terminal leafy spike. Stamens equal. Capsules nearly cylindrical.
Œnothera biennis, *E. B.* 1534. *Smith* II. 211. *Lindley* 109. *Hooker ed.* 2. 178. *ed.* 3. 182.

From being long cultivated in our gardens, and multiplying freely by seed, this plant is not unfrequently found upon waste grounds and road-sides apparently indigenous; but upon the extensive and dreary sand-banks on the coast, a few miles north of Liverpool, it has long been established as a less equivocal native, or at least as a naturalized emigrant from the opposite shores of the Atlantic. It is a biennial, growing from 3 to 4 feet high, and flowering from July to October. The flowers, which have a delicate fragrance, expand very rapidly towards evening, and the process is worthy of attention, as a few minutes, in warm weather, is often sufficient to witness their evolution from the closed bud.

GENUS CCXXIII. EPILOBIUM. *Willow-herb.*

Nat. Order. ONAGRARIÆ.

GEN. CHAR. *Calyx* superior, 4-parted; segments free, deciduous. *Petals* 4. *Capsule* elongated, bluntly 4-sided, 4-celled, 4-valved, many-seeded. *Seeds* pappose.

Hardy herbaceous perennials, with toothed, alternate, or spuriously opposite, leaves, and purple or rose-coloured, rarely white, and never blue or yellow, flowers. Some of the species are highly ornamental, others mere weeds. Their properties are not remarkable.

* *Flowers irregular. Stamens declining.*

EPILOBIUM ANGUSTIFOLIUM. *Rose-bay Willow-herb. French Willow-herb.* TAB. **542.**

Leaves scattered, linear-lanceolate, veined, smooth. Inflorescence subspicate. Petals unequal. Stamens bent down.

Epilobium angustifolium, *E. B.* 1947. *Smith* II. 212. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 182.

The handsomest of our species, but doubtfully indigenous, though found apparently wild in many parts of Scotland, and in the North of England. Moist meadows, and shady places on the borders of woods, are its affected habitats; but its beauty recommended it so early as a garden flower that we fear it can only rank as one of the many exotic gems, that, long acclimated, add to the brilliancy of our native flora. It has a widely creeping root, and the stems rise from 3 to 6 feet high, flowering in July and August. No plant thrives better under the drip of trees; and the rich crimson of its large flowers renders it one of the most beautiful ornaments of the shaded garden and shrubbery.

** *Flowers regular. Stamens erect. Stigmas 4-cleft.*

EPILOBIUM HIRSUTUM. *Great Hairy Willow-herb. Codlings and Cream.* TAB. **543.**

Leaves half stem-clasping, ovato-lanceolate, deeply toothed, hairy. Stem much branched, hairy. Root creeping. Stigma 4-cleft.

Epilobium hirsutum, *E. B.* 838. *Smith* II. 213. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

Almost equal in beauty to the preceding species, and very common in watery places, osier beds, and on the banks of rivers, ponds, and ditches, rising 4 or 5 feet high, and flowering in July. Its flowers are large and conspicuous, of a fine pink colour, and terminate the stem and branches in a sort of corymbus. The creeping roots distinguish it especially from the next species, with which, notwithstanding its larger size, it has been confounded. The whole herb is slightly viscid, and when touched exhales a peculiar acid scent, compared to the flavour of codlings and cream.

EPILOBIUM PARVIFLORUM. *Small-flowered Hairy Willow-herb.* TAB. **544**.

Leaves sessile, lanceolate, toothed, downy on both sides. Stem nearly simple, very downy. Root fibrous. Stigma 4-cleft.

Epilobium parviflorum, *E. B.* 795. *Smith* II. 214. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

Frequent in watery places, and about the banks of rivers. Readily distinguished from *E. hirsutum* by its smaller flowers, narrow leaves, and unbranched stem, which is seldom more than a foot or 18 inches high. Flowers in July.

EPILOBIUM MONTANUM. *Broad Smooth-leaved Willow-herb.* TAB. **545**.

Leaves shortly petiolate, ovate, acute, toothed. Stem round, pubescent. Stigma 4-cleft.

Epilobium montanum, *E. B.* 1177. *Smith* II. 214. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

About dry, shady, hilly, or stony places, and on walls and cottage roofs, this species grows abundantly ; its small rose-coloured flowers and crimson stems being conspicuous above the scanty vegetation that surrounds them. It varies in height, according to situation, from 2 or 3 inches to a foot. Flowers in July. The whole herb often becomes crimson towards the end of summer. In habit it comes near to the next species, but the 4-cleft stigma is a certain character of distinction.

*** *Flowers regular. Stamens erect. Stigma undivided.*

EPILOBIUM ROSEUM. *Pale Smooth-leaved Willow-herb.* TAB. **546**.

Leaves petiolate, ovato-lanceolate, toothed. Stem erect, with 4 obsolete angles. Stigma clavate.

Epilobium roseum, *E. B.* 693. *Smith* II. 215. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

Very common in the counties around London, and a troublesome weed in gardens; not at all particular as to soil or situation, but growing both in wet and dry places. The entire stigma renders it impossible to confound this with *E. montanum*, but it is less certainly distinguished from the following, of which our botanists at first considered it a mere variety. The obtusely angled, somewhat compressed stem, and broader petiolate leaves, are the only features by which it ranks as a separate species. Flowers in July. From 12 to 18 inches high.

EPILOBIUM TETRAGONUM. *Square-stalked Willow-herb.* TAB. **547.**

Leaves sessile, lanceolate, toothed. Stem quadrangular, nearly smooth. Stigma clavate.

Epilobium tetragonum, *E. B.* 1948. *Smith* II. 215. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

Common in watery places and marshes, flowering in July. The stem is roundish in its transverse section, but marked with 4 angular ribs at unequal distances from each other; a difference between it and the last species which is expressed in our figures.

EPILOBIUM PALUSTRE. *Narrow-leaved Marsh Willow-herb.* TAB. **548.**

Leaves sessile, linear-lanceolate, slightly toothed. Stem round. Stigma undivided.

Epilobium palustre, *E. B.* 346. *Smith* II. 216. *Lindley* 108. *Hooker ed.* 2. 179. *ed.* 3. 183.

Grows in marshy places and by the sides of lakes and ditches, but mostly in a turfy soil. About a foot high. The flowers, which are small and unattractive, appear in July.

EPILOBIUM ALSINIFOLIUM. *Chickweed-leaved Willow-herb.* TAB. **549.**

Leaves nearly sessile, ovate, acute, toothed; the lowermost entire. Stem decumbent, obtusely quadrangular. Root creeping, matted. Stigma entire. Capsules pubescent, with recurved hairs.

Epilobium alsinifolium, *E. B.* 2000. *Smith* II. 216. *Lindley* 108. *Hooker ed.* 2. 180. *ed.* 3. 184.

An alpine species growing on the sides of rivulets and waterfalls, among the mountains of North Wales and Scotland. It somewhat resembles in habit *E. montanum*, but is distinguished by its clavate stigma. Flowers in July.

EPILOBIUM ALPINUM. *Alpine Willow-herb.* TAB. **550.**

Leaves nearly sessile, elliptic-lanceolate, obtuse, mostly entire. Stem decumbent, 2- or 3-flowered. Stigma undivided. Fruit smooth.

Epilobium alpinum, *E. B.* 2001. *Smith* II. 217. *Lindley* 108. *Hooker ed.* 2. 180. *ed.* 3. 184.

By the sides of springs and rivulets on the Highland mountains of Scotland, this, the smallest of our Epilobiums, being seldom more than 2 or 3 inches high, grows in tolerable abundance. It has a creeping root, and, size apart, may not be very distinct from the preceding. The flowers, sometimes solitary, but at most 2 or 3, come out in July; they droop before expansion. The capsule is erect, often as long as the plant itself, and ripens in August.

Genus CCXXIV. VACCINIUM. *Whortle-berry.*

Nat. Order. Vaccinieæ.

Gen. Char. *Calyx* superior, 4- or 5-toothed. *Corolla* monopetalous, urceolate or campanulate, with 4 or 5 erect segments. *Anthers* with 2 pores. *Berry* globose, succulent, crowned with the persistent calyx, many-seeded.

Shrubs with alternate, simple, stiff or coriaceous leaves, and pink, red, or white flowers. Natives of heaths and mountains in peaty or moorish soil. They abound in North America, which is the principal station of the genus, and extend into high northern latitudes. Their property is astringency, but the fruits of many species are edible.

* *Leaves deciduous. Anthers awned at the back.*

VACCINIUM Myrtillus. *Whortle-berry. Bilberry.* Tab. **551.**

Peduncles 1-flowered, solitary. Leaves ovate, serrated, membranous, smooth, deciduous. Stems acutely angular. Corolla urceolate. Stamens 8—10; anthers with 2 dorsal awns.

Vaccinium Myrtillus, *E.B.* 456. *Smith* II. 219. *Lindley* 134. *Hooker ed.* 2. 177. *ed.* 3. 181.

Common on heaths and moors, especially in mountainous districts, and in woods where the soil is turfy, but in the latter case seldom flowering. About May the young fresh-green leaves, and pink, wax-like, pendent flowers make an elegant appearance. The berries when ripe are of a dark blue colour, somewhat glaucous; and are much employed, in the North especially, for tarts and preserves.

VACCINIUM uliginosum. *Great Bilberry. Bog Whortle-berry.* Tab. **552.**

Peduncles aggregate, 1-flowered Leaves obovate, entire, smooth, deciduous. Stems round. Corolla ovate. Anthers with 2 dorsal awns.

Vaccinium uliginosum, *E. B.* 581. *Smith* II. 220. *Lindley* 134. *Hooker ed.* 2. 177. *ed.* 3. 181.

This is not so frequent as the last, being confined to the northern parts of our island. It is met with on boggy, mountainous heaths in Westmoreland, Cumberland, and the Highlands of Scotland. The flowers are smaller than those of *V. Myrtillus*, but the berries much larger; they are, however, less agreeable to the taste, and are said to occasion headache if eaten in any quantity, on which accounts they are seldom used as food. Leaves glaucous beneath. Flowers in May.

** *Leaves evergreen. Anthers awnless at the back.*

VACCINIUM Vitis Idæa. *Cow-berry. Red Whortle-berry.* Tab. **553.**

Racemes terminal, drooping. Leaves evergreen, obovate, revolute at the margin, minutely toothed; dotted beneath. Corolla campanulate. Anthers prolonged, but without dorsal awns.

Vaccinium Vitis Idæa, *E. B.* 598. *Smith* II. 221. *Lindley* 134. *Hooker ed.* 2. 178. *ed.* 3. 182.

Dry, stony, turfy heaths and moors in Scotland, Wales, and the North of England, are copiously clothed with this pretty little evergreen, whose foliage somewhat resembles that of the Box used for edging parterres. Its delicate blush-coloured flowers appear in May and June, and the fruit, which is crimson, ripens about August. The latter, boiled with sugar, and made into tarts, is edible, but much more astringent and bitter than either the Common Whortle or the Cranberry.

Genus CCXXV. OXYCOCCUS. *Cranberry.*

Nat. Order. Vacciniæ.

Gen. Char. *Calyx* 4-toothed. *Corolla* monopetalous, rotate, deeply 4-cleft, with reflexed segments. *Anthers* with 2 pores; cells prolonged, but without dorsal awns. *Berry* succulent, crowned with the persistent calyx, many-seeded.

Separated from *Vaccinium*, with which it accords in other respects, on account of the deeply divided, revolute corolla. Trailing evergreen shrubs, with alternate leaves, rose-coloured flowers, and acid, edible fruit.

OXYCOCCUS palustris. *Common Cranberry.* Tab. **554.**

Peduncles one-flowered, terminal. Leaves ovate, entire, acute, smooth; revolute at the margin. Stems filiform, procumbent.

Vaccinium Oxycoccos, *Linn. E. B.* 319. *Smith* II. 221. *Hooker ed.* 2. 178. *ed.* 3. 182. Oxycoccus palustris, *Richard. Lindley* 134.

Grows on turfy bogs, mostly entangled in tufts of *Sphagnum* and other bog mosses, which cover the surface of clear shallow waters, so that those who gather the fruit are often obliged to wade up to their middle to get at it. It is an elegant little plant, its bright rose-coloured flowers, and crimson berries, drooping on the curved extremity of the peduncle, whence the English name Cranberry or Crane-berry. Prepared with sugar, Cranberries make excellent tarts;

though according to Linnæus the Swedes consider them unfit for eating, and only use them to boil silver plate to whiteness, the sharp acid of the Cranberry corroding the external particles of the copper alloy. They are, however, imported into this country for culinary purposes, both from Sweden and Russia; and Dr. Hooker informs us that at Longtown, on the borders of Cumberland, the fruit of our own morasses forms no inconsiderable article of trade. The American Cranberry, likewise imported, is the fruit of a different species, *O. macrocarpus*, and is of larger size, but far inferior flavour. Flowers in June.

GENUS CCXXVI. MENZIESIA. *Menziesia.*

Nat. Order. ERICEÆ.

GEN. CHAR. *Calyx* inferior, deeply cloven into 4 or 5 segments. *Corolla* monopetalous, ventricose, 4- or 5-toothed. *Stamens* 8 or 10. *Capsule* 4- or 5-celled, many-seeded; dehiscence septicidal (valves in opening dividing the dissepiments).

Ornamental shrubs of Heath-like habit; they have narrow evergreen leaves, and red, purple, or ferruginous flowers.

MENZIESIA CŒRULEA. *Scottish Menziesia.* TAB. **555.**

Leaves scattered, numerous, linear, obtuse, with cartilaginous teeth. Flower-stalks terminal, aggregate, simple. Flowers drooping, urceolate, 5-cleft, decandrous.

Menziesia cœrulea, *E. B.* 2469. *Smith* II. 222. *Lindley* 173. *Hooker ed.* 2. 175. *ed.* 3. 179. Andromeda cœrulea, *Linn.*

One of the rarities of the British Flora, found upon heathy moors near Aviemore in Strathspey, and in the western isles of Shiant, Scotland. In North America it is common. The flowers are large and beautiful, of a bluish-purple hue, and expand in June and July.

MENZIESIA POLIFOLIA. *Irish Menziesia. St. Dabeoc's Heath.* TAB. **556.**

Leaves ovate, revolute at the margin; white and downy beneath. Flowers drooping, 4-cleft, octandrous, in terminal leafy racemes.

Erica Dabeoci, *Linn.* *E. B.* 35. Menziesia polifolia, *Smith* II. 223. *Lindley* 173. *Hooker ed.* 2. 175. *ed.* 3. 180.

This beautiful little shrub, not uncommon in the gardens of the curious, is found abundantly wild on the mountains in the West of Ireland. It varies with white and red flowers, the latter the most frequent; they come out in July, and the plant continues to bloom through the summer.

GENUS CCXXVII. ERICA. *Heath.*

Nat. Order. ERICEÆ.

GEN. CHAR. *Calyx* 4-leaved, inferior. *Corolla* monopetalous, campanulate, often ventricose, 4-toothed. *Capsule* 4-celled, 4-valved; dehiscence loculicidal (the dissepiments from the middle of the valves).

A very beautiful genus of evergreen shrubs, with linear, rigid, whorled or opposite leaves, and highly ornamental flowers of various shades of red, purple, yellow, and white, but never blue. In the number of species, between five and six hundred, it exceeds all other known genera, and is remarkable as being peculiar to the Eastern hemisphere. The far greater proportion are indigenous to Southern Africa.

ERICA TETRALIX. *Cross-leaved Heath.* TAB. **557.**

Anthers bearded with 2 acute awns at the base. Corolla ovate, as long as the style. Flowers in round tufts. Leaves 4 in a whorl, ciliated.

Erica Tetralix, *E. B.* 1014. *Smith* II. 226. *Lindley* 174. *Hooker ed.* 2. 176. *ed.* 3. 180.

This, the most beautiful of our common indigenous Heaths, grows abundantly on moist moory ground, and quaking bogs, throughout the kingdom. The blossoms, terminating the branches in graceful drooping tufts, vary from deep rose-colour to every shade of carnation, and even to the purest white; they are of a delicate wax-like texture, which the unpractised eye would almost deem artificial. July and August are said to be the flowering-season, but, like many others of its genus whose inflorescence is terminal, the Cross-leaved Heath developes flowers in succession until late in the autumn.

ERICA CINEREA. *Fine-leaved Heath.* TAB. **558.**

Anthers with 2 serrated appendages at the base. Style a little prominent. Stigma capitate. Corolla ovate. Leaves 3 in a whorl.

Erica cinerea, *E. B.* 1015. *Smith* II. 226. *Lindley* 174. *Hooker ed.* 2. 176. *ed.* 3. 180.

Abundant on turfy heaths, and far more common than the preceding, which vegetates only in a moist soil or in places occasionally inundated. The flowers are smaller than those of *E. Tetralix*, and occupy the extremities of the branches in large whorled, drooping racemes; their colour varies from a deep reddish purple to white. The ternate leaves are linear, smooth, and reflexed at the margin; a tendency to the constant development of young branches in their axils, giving each series a tufted appearance. A straggling, much-branched shrub, from a foot to 18 inches high. Flowers in July and to the end of October.

ERICA MEDITERRANEA β. *Mediterranean Heath*, var. β. TAB. **558***.

Anthers without awns, and, as well as the style, exserted. Corolla narrow, urceolate. Calyx coloured. Bracteas about the middle of the peduncle. Flowers axillary. Leaves 4 in a whorl.

Erica mediterranea β, *E. B. Supp.* 2774. *Hooker ed.* 2. 176. *ed.* 3. 180. *Bot. Mag.* 471.

Discovered in 1830 by J. T. Mackay, Esq., growing in boggy ground, on Urrisbeg mountain, Cunnamara, Ireland, covering a space of at least two acres. A low shrub, with dense, nearly upright branches. Flowers in April. Both calyx and corolla are of a pale flesh-colour, deepening towards the apex, and contrasting with the dark-brown, projecting anthers. Flowers small, numerous, towards the extremities of the short terminal branches.

ERICA VAGANS. *Cornish Heath.* TAB. **559**.

Anthers without awns, and, as well as the style, prominent; deeply bifid. Corolla campanulate. Flowers on simple, crowded, axillary stalks. Leaves 4 in a whorl.

Erica vagans, *E. B.* 3. *Smith* II. 227. *Lindley* 174. *Hooker ed.* 2. 176. *ed.* 3. 180. Erica multiflora, *Hudson*, not of *Linnæus*.

This species, though long known as a native of Cornwall, and abundant in the part of that county in which it grows, is, like the preceding, a probable colonist from the South of Europe, where they are both common plants. The present is a highly ornamental little shrub, and as such often cultivated in gardens. The flowers occupy the middle of the terminal branches, forming a densely crowded, leafy raceme; and their open bell-shaped corolla distinguishes this from all the other native species, in which the corolla is ovate; they appear in July and August, and are of a bright rose-colour, varying to white, with dark-brown projecting anthers, the cells of which are separated more than half their length.

ERICA CILIARIS. *Fringed-leaved Heath.* TAB. **559***.

Anthers awnless, included. Corolla ovate, inflated. Flowers in terminal, unilateral racemes. Leaves 4 in a whorl, ovate, glaucous beneath; fringed, as well as the calyx, with glandular hairs.

Erica ciliaris, *Linn.* *E. B. Supp.* 2618. *Lindley* 174. *Hooker ed.* 2. 176. *ed.* 3. 181.

Communicated to Professor Hooker in 1828 by the Rev. J. S. Tozer, from a bog near Truro, in Cornwall, when it was first ascertained to be a British plant. Several other habitats in the same county have since been added to the above, and, considering the showy character of the inflorescence, it is remarkable that it should not have been before distinguished. The geographical situation of the county in which this beautiful addition to our Flora is established, added to the knowledge of its frequency in the Southern provinces of France, and in Spain and Portugal, suggests the probability of its having migrated thence like the two preceding; under a similar natural agency to that which has planted the Aloe of Africa on the islands of the West Indies, and the Cactus of America on those of Canary and Cape Verde. Flowers in July and August. Corolla deep red, paler below.

GENUS CCXXVIII. CALLUNA. *Ling.*

Nat. Order. ERICEÆ.

GEN. CHAR. *Calyx* inferior, 4-leaved, coloured; with 4 verticillate bracteæ at its base, resembling an outer calyx. *Corolla* campanulate, 4-cleft; concealed by the calyx. *Capsule* 4-celled, 4-valved; valves opening at the dissepiments, but leaving them attached to the axis.

Habit similar to that of the last genus, from which it has been separated on account of the remarkable difference in the structure of its flowers, and the free dissepiments of the capsule.

CALLUNA VULGARIS. *Common Ling. Grig.* TAB. **560.**

The only known species.

Erica vulgaris, *Linn. E. B.* 1013. Calluna vulgaris, *Smith* II. 225. *Lindley* 173. *Hooker ed.* 2. 177. *ed.* 3. 181.

This, though no longer an Erica, is the true Heath, that, abundant on all our mountain moors and barren wastes, has communicated a common name to places of which it forms the predominating feature. It is a low, branching shrub of sombre hue, with minute opposite leaves, closely imbricated on the younger branches in 4 rows, more or less hairy, and with two small decurrent spurs at the base of each. Its deep red blossoms are produced in profusion from June to October, and communicate a purple hue to the landscape they adorn, as well known to the artist as to the botanist. The Ling, that in the more fertile counties of England is only sought for as fuel, and to manufacture the brooms called Heath-brooms, is an important plant to our northern countrymen, who convert it to various purposes of domestic economy of which a Southron would scarcely deem it capable.

GENUS CCXXIX. CHLORA. *Yellow-Centaury.*

Nat. Order. GENTIANEÆ.

GEN. CHAR. *Calyx* inferior, with 8 deep segments. *Corolla* monopetalous, nearly rotate with 8 segments. *Stamens* inserted in the orifice, short. *Stigma* 4-cleft. *Capsule* 1-celled, 2-valved, many-seeded.

Annual herbs, with entire, opposite leaves, and yellow flowers. Exceedingly bitter, the general character of the natural order to which they belong.

CHLORA PERFOLIATA. *Perfoliate Yellow-Centaury.* TAB. **561.**

Leaves ovate, glaucous, connato-perfoliate.

Chlora perfoliata, *E. B.* 60. *Smith* II. 218. *Lindley* 179. *Hooker ed.* 2. 175. *ed.* 3. 179.

It often abounds in open, hilly situations, in the middle and southern counties of England, where the substratum is chalk, limestone, or marl, but seldom elsewhere. It is impatient of cultivation, otherwise the contrast of its glaucous hue, with the brilliant gold-colour of its large flowers, would render it a worthy inmate of the garden. Stems dichotomous above, from 3 or 4 inches to a foot high. Flowers in July and August.

GENUS CCXXX. ACER. *Maple.*

Nat. Order. ACERINEÆ.

GEN. CHAR. *Calyx* 5-cleft, inferior. *Petals* 5. *Germen* 2-lobed. *Capsules* 2, united at the base; each with a long, winged membrane.

Trees, sometimes of considerable size, with opposite, lobed, exstipulate leaves, and green or yellow flowers, in axillary corymbs or racemes. The wood, though in some species very soft, is applicable to various purposes.

ACER PSEUDO-PLATANUS. *Greater Maple. Sycamore.* TAB. **562.**

Leaves 5-lobed, unequally serrated. Racemes pendulous.

Acer Pseudo-Platanus, *E. B.* 303. *Smith* II. 230. *Lindley* 55. *Hooker ed.* 2. 175. *ed.* 3. 179.

The Sycamore has been long naturalized in Britain, but is certainly not indigenous. It is chiefly valuable as a tree of quick growth, ample shade, and sightly aspect; hence very commonly planted near houses, and to form groves and clumps in new-made parks, though less now than formerly. The wood is used for purposes not requiring much solidity, but is far less valuable than that of the Maple. Flowers in May and June, the singularly winged fruit ripening about the beginning of September.

ACER CAMPESTRE. *Common Maple.* TAB. **563.**

Leaves mostly 5-lobed; lobes obtuse, notched. Flowers in erect, corymbus-like racemes.

Acer campestre, *E. B.* 304. *Smith* II. 230. *Lindley* 55. *Hooker ed.* 2. 175. *ed.* 3. 179.

A small tree with deeply fissured cork-like bark, and divaricated opposite branches. It is very common in hedges and thickets in the southern counties, especially in a chalky soil, and flowers in May and June. The wood is compact, of a fine grain, and often very beautifully veined, hence frequently employed by the turners and veneerers.

The ancient Romans are said to have set an exorbitant value upon their tables of Maple-wood, according to their size and the beauty of their veins.

GENUS CCXXXI. DAPHNE. *Mezereon and Spurge-Laurel.*

Nat. Order. THYMELEÆ.

GEN. CHAR. *Calyx* inferior, 4-cleft, petaloid. *Berry* 1-seeded.

Shrubs, with entire leaves, and white, yellow, or reddish flowers, which are often highly fragrant. They are chiefly natives of the Eastern hemisphere. Every part of them is highly acrid, especially the bark, which is remarkable for its toughness, and the curious interlacing of its silky fibres.

DAPHNE MEZEREUM. *Common Mezereon.* TAB. **564.**

Flowers sessile upon the branches, about 3 together. Leaves lanceolate, deciduous.

Daphne Mezereum, *E. B.* 1381. *Smith* II. 228. *Lindley* 209. *Hooker ed.* 2. 180. *ed.* 3. 184.

This beautiful shrub, so common in our gardens and plantations, is occasionally found wild in the woods in several parts of England, possibly from its berries being dropped by birds which feed on them with avidity. Its fragrant rose-coloured flowers appear in March, generally previous to the expansion of the leaves; in cultivation they sometimes vary to white. The Mezereon has a place in our authorized Materia Medica, the bark being administered in decoction in cases of nervous debility of the throat or stomach. The berries are of a bright scarlet, contrasting finely with the light green of the leaves, but the birds seldom allow them to remain long after they become ripe.

DAPHNE LAUREOLA. *Spurge-Laurel.* TAB. **565.**

Racemes axillary, about 5-flowered, drooping. Leaves lanceolate, smooth; evergreen.

Daphne Laureola, *E. B.* 119. *Smith* II. 228. *Lindley* 209. *Hooker ed.* 2. 180. *ed.* 3. 184.

A shrub 2 or 3 feet high, but little branched, and bearing leaves only towards the extremities. Common in woods and thickets in a stiff clayey soil throughout England. The yellowish green flowers expand in March. The berries are black; they are eaten by birds, but said to be poisonous to all other warm-blooded animals. The bark of the root is an acrid cathartic, and said to be an efficacious remedy in worm cases, but is highly dangerous except in minute doses.

ORDER II. TRIGYNIA.

GENUS CCXXXII. POLYGONUM. *Persicaria, Bistort, Knot-grass, and Buck-wheat.*

Nat. Order. POLYGONEÆ.

GEN. CHAR. *Calyx* inferior, deeply 5-cleft, persistent, petaloid. *Stamens* 5—8. *Styles* 2 or 3. *Fruit* a 1-seeded, compressed, or triangular nut; indehiscent.

Herbaceous plants, having generally reddish or white flowers, jointed stems, entire, alternate leaves, and sheathing stipulæ (*ochreæ*). They are found in temperate climates in both hemispheres, are mostly mere weeds, but occasionally very ornamental. Their seeds afford subsistence to numerous small birds, and in some instances even to man. Properties variable. The root of *P. Bistorta* is one of the most powerful of vegetable astringents.

* *Styles mostly* 2. *Nuts compressed.*

POLYGONUM AMPHIBIUM. *Amphibious Persicaria.* TAB. **566.**

Styles 2, united half-way up. Stamens 5. Spike ovate. Leaves petiolate, cordato-lanceolate, ciliated at the margins.

Polygonum amphibium, *E. B.* 436. *Smith* II. 232. *Lindley* 211. *Hooker ed.* 2. 182. *ed.* 3. 186.

The most beautiful of our indigenous species, and tolerably common in lakes, ponds, and ditches, displaying its fine rose-coloured spikes of flowers in July and August. The stem often grows to the length of 3 or 4 feet in the water, the leaves floating upon the surface, and the flower-stems only standing above it; but when the plant grows on the land, it is more erect, with narrower leaves, rough on both sides, as well as at the margin, with rigid, adpressed hairs, and rarely produces flowers. The brown, glossy fruit is a favourite food of swans and other water-fowl. A perennial, the roots creeping, and running deep into the mud.

POLYGONUM PERSICARIA. *Spotted Persicaria.* TAB. **567.**

Styles 2, united half-way up. Stamens 6. Spikes ovato-oblong, erect; on smooth stalks. Stipules fringed. Leaves lanceolate, almost sessile.

Polygonum Persicaria, *E. B.* 756. *Smith* II. 233. *Lindley* 211. *Hooker ed.* 2. 182. *ed.* 3. 186.

An annual plant, very common in ditches and watery places, producing its spikes of pink or whitish flowers very copiously in July and

August. The stem is erect, from 1 to 2 feet high, and alternately branched; the leaves smooth, and mostly marked with a dark spot in the form of a horse-shoe. The smooth flower-stalks and fringed stipules especially distinguish this from the next species.

POLYGONUM LAPATHIFOLIUM. *Pale-flowered Persicaria.* TAB. **568.**

Styles 2, distinct. Stamens 6. Spikes oblong-erect, on rough stalks. Stipulæ not fringed. Leaves ovato-lanceolate, shortly petiolate. Seeds concave on each side.

Polygonum lapathifolium, *E. B.* 1382. *Smith* II. 234. *Lindley* 212. *Hooker ed.* 2. 182. *ed.* 3. 186.

Common on cultivated ground, and on dunghills. It is an annual, from 12 to 18 inches high, flowering in July and August. There are several varieties of this plant, some of which are not very readily known from *P. Persicaria*, except by close observation of the specific characters of each, which were first pointed out by Mr. Curtis. The pale yellow-white of the flowers in our figure is often exchanged for a red; in some individuals the stem is spotted; while the leaves, which are glabrous in some, in others are hoary, especially upon the under side.

POLYGONUM HYDROPIPER. *Biting Persicaria.* TAB. **569.**

Style divided half-way down. Stamens 6. Spikes slender, drooping. Leaves lanceolate, waved, without spots. Stem erect.

Polygonum Hydropiper, *E. B.* 989. *Smith* II. 235. *Lindley* 212. *Hooker ed.* 2. 182. *ed.* 3. 186.

Abundant everywhere in ditches and watery places, and well distinguished from the other common species by its slender, drooping spikes of distant reddish flowers, and pale green, waved, spotless leaves. The specific name, literally Water Pepper, refers to its acrid, pungent flavour, which is due to an essential oil contained in numerous dotted glands scattered over the surface of the whole herb. It is an annual, 2 or 3 feet high, flowering in August and September.

POLYGONUM MINUS. *Small creeping Persicaria.* TAB. **570.**

Style undivided. Stamens 6. Spikes slender, upright. Leaves linear-lanceolate, plane. Stem trailing at the base.

Polygonum minus, *E. B.* 1043. *Smith* II. 235. *Lindley* 212. *Hooker ed.* 2. 183. *ed.* 3. 187.

This species, nearly allied to the preceding, is well charactered by its upright, slender spikes, narrower, unwaved leaves, and undivided style. It is very frequent on gravelly, watery commons in the neighbourhood of the metropolis, and is found in several other parts of the kingdom, but is a more local plant than the others of its section. An annual. Flowers in September.

** *Styles* 3. *Nut triangular.*

POLYGONUM Bistorta. *Great Bistort. Snake-weed.* Tab. **571.**

Stem simple, bearing one spike. Leaves ovate, waved, tapering at the base into a footstalk. Flowers octandrous.

Polygonum Bistorta, *E. B.* 509. *Smith* II. 236. *Lindley* 212. *Hooker ed.* 2. 181. *ed.* 3. 185.

The Bistort grows in moist meadows in various parts of the kingdom, but is more frequent in the northern than the southern counties. It is a very troublesome weed, especially in rich soil, creeping rapidly at the root and eradicating all other herbage. The stem rises from 1½ to 2 feet high, bearing a solitary spike of pink flowers, each on a short pedunculus, with 2 membranaceous bracteæ at the base. The astringency of the root has occasioned its introduction in medicine. Perennial. Flowers in June.

POLYGONUM viviparum. *Viviparous Alpine Bistort. Small Bistort.* Tab. **572.**

Stem simple, bearing one spike. Leaves linear-lanceolate, revolute at the margin. Flowers octandrous.

Polygonum viviparum, *E. B.* 669. *Smith* II. 237. *Lindley* 212. *Hooker ed.* 2. 181. *ed.* 3. 185.

An alpine plant, growing only on elevated pastures and in the moist fissures of rocks in the North of England and Highlands of Scotland. The root is perennial, tuberous, and resembles that of *P. Bistorta* in astringency. Stem erect, about 6 inches high, leafy, bearing a few-flowered, slender, terminal spike. The seeds are rarely perfected, the pistil, of the lowermost flowers especially, changing into a bud, which begins to throw out leaves before it falls to the ground, where, taking root, it forms a new plant, as in many other alpine vegetables. The flowers appear in June and July, and are of a pale flesh-colour.

POLYGONUM aviculare. *Knot-grass.* Tab. **573.**

Flowers axillary. Leaves elliptic-lanceolate, rough at the margin. Veins of the stipulæ remote. Stem procumbent, herbaceous.

Polygonum aviculare, *E. B.* 1252. *Smith* II. 238. *Lindley* 212. *Hooker ed.* 2. 181. *ed.* 3. 185.

A very common weed in waste ground, and by road-sides, as well as in neglected fields and gardens, where it flowers and ripens seed in succession through the summer. The stamens sometimes amount to 10 in each flower. It is an annual, varying greatly in luxuriance, according to the situation in which it grows. A maritime variety, found on several parts of our coast, is suspected by Hooker to be a distinct species. It is perennial, much larger, glaucous, and differs more especially in having the fruit smooth and protruded beyond the calyx, instead of being striated with raised points, and included by the persistent envelope, as in the common *P. aviculare.*

POLYGONUM Fagopyrum. *Buck-wheat.* Tab. **574.**

Leaves cordato-sagittate. Stem nearly upright, without prickles. Angles of the fruit even.

Polygonum Fagopyrum, *E. B.* 1044. *Smith* II. 239. *Lindley* 212. *Hooker ed.* 2. 182. *ed.* 3. 186.

Not indigenous, but frequently found wild on dunghills, waste places, and cultivated fields, having been long since introduced into this country for the sake of its seeds, which are excellent food for poultry. Fields of Buck-wheat are not uncommon in Norfolk and other sporting counties, where it is cultivated for the sake of the pheasants. It is an annual, with a branched stem about a foot in height. Flowers in July and August.

POLYGONUM Convolvulus. *Climbing Buck-wheat. Black Bindweed.* Tab. **575.**

Leaves cordato-sagittate. Stem twining, angular. Segments of the calyx bluntly keeled.

Polygonum Convolvulus, *E. B.* 941. *Smith* II. 239. *Lindley* 212. *Hooker ed.* 2. 182. *ed.* 3. 186.

Frequent in osier grounds, hedges, and a troublesome weed in corn-fields and gardens, producing its flowers and seeds in succession from June to September. The stem is branched, climbing to the height of 6 or 8 feet, and bearing the flowers in axillary, leafy spikes, formed of several whorls of about 4 flowers each. The number of stamens is inconstant. Small birds feed upon the seeds of this as well as of most of the other species of *Polygonum.*

ORDER III. TETRAGYNIA.

GENUS CCXXXIII. PARIS. *Herb Paris.*

Nat. Order. SMILACEÆ.

Gen. Char. *Calyx* 4-leaved. *Petals* 4. Cells of the *Anthers* fixed one on each side of the middle of a subulate filament. *Berry* 4-celled; each cell with several seeds in two rows.

A very curious genus of herbaceous plants, remarkable for the numeral correspondence of all their organs. Natives of woods and moist shady places in Europe and Asia.

PARIS quadrifolia. *Common Herb Paris.* Tab. **576.**

Leaves ovate, mostly 4 in a whorl.

Paris quadrifolia, *E. B.* 7. *Smith* II. 241. *Lindley* 271. *Hooker ed.* 2. 183. *ed.* 3. 187.

A gloomy-looking plant, with creeping roots, forming extensive patches in shady woods in many parts of the kingdom. The stems rise about a foot from the ground, bearing about 4 large, ovate, acuminated leaves in a whorl at the apex, from the centre of which arises a single flower, nearly erect, upon a long slender footstalk, and consisting of a calyx of 4 lanceolate, dark green leaves, a corolla of 4 narrow, linear, yellowish-green petals, 8 stamens, and a bluish-black germen of 4 cells, terminating in 4 stigmas. The leaves sometimes vary to 3 and 5 or even 6, when the floral organs rarely fail in presenting corresponding numbers. It is a perennial, flowering in May and June. The root is said by Linnæus to act as an emetic. The berry is narcotic, and the whole plant has always been considered poisonous.

GENUS CCXXXIV. ADOXA. *Moschatell.*

Nat. Order. SAXIFRAGEÆ.

GEN. CHAR. *Calyx* half inferior, 3- or 4-cleft. *Corolla* 4- or 5-cleft. *Stamens* 8 or 10; *anthers* terminal, 1-celled. *Styles* 4 or 5. *Berry* 4- or 5-celled.

A singular little herbaceous plant, with an imbricated tuberous root, ternate leaves, and small yellow flowers in a terminal head.

ADOXA MOSCHATELLINA. *Tuberous Moschatell.* TAB. **577.**

The only known species.

Adoxa Moschatellina, *E. B.* 453. *Smith* II. 242. *Lindley* 67. *Hooker ed.* 2. 183. *ed.* 3. 187.

Not very unfrequent in woods, thickets, and shady lanes, though liable to be overlooked from its inconspicuous appearance. The imbricated root sends out runners in every direction, and about 2 almost triternate leaves on very long petioles rise from the apex, together with a stem about 5 or 6 inches high, bearing 2 opposite, ternate leaves with short dilated petioles, and ending in a small head composed of 5 flowers, 4 in a whorl, the 5th terminating; the latter only, in general, is octandrous. The generic name, *Adoxa* (inglorious), is expressive of its humble aspect; the specific one, by which it was originally known, was bestowed on account of a faint musk-like smell given out by the plant when trodden upon, and likewise by the flowers when moist with dew or rain. Perennial. Flowers in April.

GENUS CCXXXV. ELATINE. *Water-wort.*

Nat. Order. CARYOPHYLLEÆ.

GEN. CHAR. *Calyx* 3- or 4-parted, persistent, inferior. *Petals* 3 or 4. *Stamens* 3, 6, or 8. *Styles* 3 or 4, very short. *Capsule* 3- or 4-valved, 3- or 4-celled, many-seeded. *Seeds* cylindrical, furrowed and transversely striated; attached to a central, free receptacle.

Small, creeping, annual plants, with minute whitish flowers, growing in plashy places, and on the margins of lakes, generally in the water.

ELATINE HEXANDRA. *Small Hexandrous Water-wort.* TAB. **578.**

Leaves opposite, spathulate. Flowers alternate, pedicellate, erect, hexandrous, tripetalous. Calyx longer than the fruit, segments spreading, orbicular. Petals obovate. Capsules turbinate, concave at the summit, 3-celled. Seeds nearly straight, about 12 in each cell, ascending, the end by which they are attached to the receptacle being the lowest.

Elatine Hydropiper, *E. B.* 955, not of *Linnæus*. E. tripetala, *Smith* II. 243. *Lindley* 48. E. hexandra, *E. B. Supp.* 2670, descript. *Hooker ed.* 2. 183. *ed.* 3. 187.

A rare or, perhaps, little observed plant, growing on the margins of ponds and ditches in a loose, sandy soil, in several parts of England. The procumbent, branched stems root at the nodes and bind the plant to the soil. The flowers, which appear in July and August, are seldom found expanded.

ELATINE HYDROPIPER. *Small octandrous Water-wort.* TAB. **578*.**

Leaves opposite, spathulate. Flowers sessile (or nearly so), erect, octandrous, tetrapetalous; calyx shorter than the petals, its segments ligulate. Capsule roundish, depressed, 4-celled. Seeds bent almost double, pendulous.

Elatine Hydropiper, *Linn.* *E. B. Supp.* 2670. *Hooker ed.* 2. 184. *ed.* 3. 188.

Discovered in 1830 by Mr. J. E. Bowman of Wrexham, at the south-east side of Llyn Coron, Anglesey, growing with the last, but never intermixed. Flowers in August. Plant generally covered, as is *E. hexandra*, by the sand and water, the impregnation taking place without the flowers expanding.

CLASS IX. ENNEANDRIA.

ORDER I. HEXAGYNIA.

GENUS CCXXXVI. BUTOMUS. *Flowering-rush.*

Nat. Order. BUTOMEÆ.

GEN. CHAR. *Perianthium* petaloid, 6-parted, inferior. *Capsules* 6, many-seeded. *Seeds* attached to the inner lining of the capsule.

Elegant water plants, with linear, parallel-veined leaves, and conspicuous purple, rose-coloured, or white flowers.

BUTOMUS UMBELLATUS. *Common Flowering-rush.* TAB. **579.**

Leaves linear, subulate, trigonous. Scape longer than the leaves. Spathe 3-leaved.

Butomus umbellatus, *E. B.* 651. *Smith* II. 245. *Lindley* 272. *Hooker ed.* 2. 184. *ed.* 3. 188.

A frequent ornament of our ditches and ponds. The leaves are all radical, from 2 to 3 feet long. The flowers, terminating the scape in a large, erect umbel, expand in June and July; they vary in colour from crimson to white. Perennial.

INDEX

OF THE LATIN NAMES

IN VOL. III.

[Synonyms and names incidentally mentioned are printed in Italics.]

	Page.	Tab.
ACER campestre	89	563
—— Pseudo-Platanus	89	562
Acorus Calamus	59	495
Actinocarpus Damasonium	77	536
Adoxa Moschatellina	95	577
Ægopodium Podagraria	8	391
Æthusa Cynapium	15	407
Alisma *Damasonium*	77	536
—— natans	78	539
—— Plantago	77	537
—— ranunculoides	77	538
—— repens	78	538*
Allium Ampeloprasum	50	473
—— arenarium	50	474
—— carinatum	50	475
—— oleraceum	51	476
—— Schœnoprasum	51	479
—— ursinum	51	478
—— vineale	51	477
Andromeda cœrulea	85	555
Anethum Fœniculum	16	408
Angelica Archangelica	20	414
—— sylvestris	20	415
Anthericum serotinum	56	489
—— *calyculatum*	75	534
—— *ossifragum*	68	519
Anthriscus Cerefolium	28	432
—— sylvestris	28	431
—— vulgaris	28	433
Apium graveolens	5	384
—— *Petroselinum*	5	384*
Archangelica officinalis	20	414
Armeria maritima	38	450
Asparagus officinalis	56	490
Athamanta Libanotis	17	409
—— *Meum*	18	412
Berberis vulgaris	44	462
Bunium *Bulbocastanum*	10	394
—— flexuosum	10	394
Bupleurum falcatum	13	401*
—— Odontites	12	399
—— rotundifolium	12	400
—— tenuissimum	12	401
Butomus umbellatus	97	579
Calluna vulgaris	88	560
Carum Carui	9	392
—— verticillatum	9	393
Caucalis *Anthriscus*	26	427
—— daucoides	25	425
—— *infesta*	26	428
—— latifolia	25	426
—— *nodosa*	27	429
Chærophyllum aromaticum	29	435*
—— aureum	29	435
—— *sativum*	28	432
—— *sylvestre*	28	431
—— temulentum	29	434
Chlora perfoliata	89	561
Cicuta virosa	4	383
Cnidium Silaus	18	411
Colchicum autumnale	76	535
—— flor. serot.	76	535*
Condylocarpus officinalis	23	421
Conium maculatum	31	438
Conopodium flexuosum	10	394

	Page.	Tab.
Convallaria Majalis	57	491
—— multiflora	58	493
—— Polygonatum	58	494
—— verticillata	58	492
Coriandrum sativum	33	441
Corrigiola littoralis	37	448
Crithmum maritimum	19	413
Daphne Laureola	90	565
—— Mezereum	90	564
Daucus Carota	24	423
—— maritimus	24	424
Drosera anglica	42	460
—— longifolia	42	459
—— rotundifolia	42	458
Echinophora spinosa	31	437
Elatine hexandra	96	578
—— Hydropiper	96	578*
—— *tripetala*	96	578
Epilobium alpinum	82	550
—— alsinifolium	82	549
—— angustifolium	80	542
—— hirsutum	80	543
—— montanum	81	545
—— palustre	82	548
—— parviflorum	81	544
—— roseum	81	546
—— tetragonum	82	547
Erica ciliaris	87	559*
—— cinerea	86	558
—— *Daboeci*	85	556
—— mediterranea β	87	558*
—— *multiflora*	87	559
—— Tetralix	86	557
—— vagans	87	559
—— *vulgaris*	88	560
Eryngium campestre	3	382
—— maritimum	3	381
Fœniculum vulgare	16	408
Frankenia lævis	45	463
—— pulverulenta	45	464
Fritillaria Meleagris	48	471
Gagea lutea	52	480
Galanthus nivalis	46	466
Helosciadium inundatum	7	389
—— nodiflorum	7	387
—— repens	7	388
Heracleum Sphondylium	22	420
—— *angustifolium*	23	
Hyacinthus non-scriptus	55	487
—— *racemosus*	55	488
Hydrocotyle *inundata*	7	389
—— vulgaris	2	379
Imperatoria Ostruthium	21	418
Juncus acutiflorus	62	502
—— acutus	60	497

	Page.	Tab.
Juncus *arcticus*	62	501*
—— *articulatus*	62	502
—— Balticus	62	501*
—— biglumis	65	512
—— bufonius	64	508
—— *bulbosus*	63	505
—— *bulbosus*	63	506
—— *campestris*	67	517
—— capitatus	65	511*
—— castaneus	64	510
—— cœnosus	64	506*
—— compressus	63	506
—— conglomeratus	61	498
—— effusus	61	499
—— filiformis	61	501
—— *Forsteri*	67	516
—— Gesneri	64	507
—— glaucus	61	500
—— *gracilis*	64	507
—— lampocarpus	62	503
—— *lampocarpus β*	63	503*
—— maritimus	60	496
—— nigritellus	62	503*
—— obtusiflorus	63	504
—— *pilosus*	67	515
—— *polycephalus*	63	503*
—— spicatus	68	518
—— squarrosus	65	511
—— *sylvaticus*	66	514
—— *tenuis*	64	507
—— trifidus	64	509
—— triglumis	66	513
—— uliginosus	63	505
Leucojum æstivum	46	467
Levisticum	17	
Ligusticum *cornubiense*	32	439
—— scoticum	17	410
Linum angustifolium	40	455
—— catharticum	41	456
—— perenne	40	454
—— usitatissimum	40	453
Luzula arcuata	68	518*
—— campestris	67	517
—— congesta	67	517*
—— Forsteri	67	516
—— pilosa	67	515
—— spicata	67	518
—— sylvatica	66	514
Menziesia cœrulea	85	555
—— polifolia	85	556
Meum Athamanticum	18	412
—— *Fœniculum*	16	408
Muscari racemosum	55	488
Myosurus minimus	43	461
Myrrhis *aromatica*	29	435*

	Page.	Tab.
Myrrhis *aurea*	29	435
—— odorata	30	436
—— *temulenta*	29	434
Narcissus biflorus	48	470
—— poeticus	47	469
—— Pseudo-Narcissus	47	468
Narthecium ossifragum	68	519
Odontites luteola	12	399
—— *tenuissima*	12	401
Œnanthe *apiifolia*	15	
—— crocata	14	405
—— fistulosa	13	402
—— peucedanifolia	14	404
—— Phellandrium	15	406
—— pimpinelloides	14	403
Œnothera biennis	79	541
Ornithogalum *luteum*	52	480
—— nutans	53	483
—— pyrenaicum	53	481
—— umbellatum	53	482
Oxycoccus palustris	84	554
—— *macrocarpus*	85	
Oxyria reniformis	69	520
Paris quadrifolia	94	576
Parnassia palustris	37	449
Pastinaca sativa	22	419
Peplis Portula	45	465
Petroselinum sativum	5	384*
—— segetum	5	385
Peucedanum officinale	21	416
—— Ostruthium	21	418
—— palustre	21	417
—— *Silaus*	18	411
Phellandrium aquaticum	15	406
Physospermum *commutatum*	32	439
—— cornubiense	32	439
Pimpinella *Anisum*	10	
—— *dioica*	6	386
—— magna	10	396
—— Saxifraga	10	395
Polygonum amphibium	91	566
—— aviculare	93	573
—— Bistorta	93	571
—— Convolvolus	94	575
—— Fagopyrum	94	574
—— Hydropiper	92	569
—— lapathifolium	92	568
—— minus	92	570
—— Persicaria	91	567
—— viviparum	93	572
Rumex Acetosa	73	529
—— Acetosella	73	530
—— acutus	70	522
—— alpinus	72	524*

	Page.	Tab.
Rumex aquaticus	71	523*
—— *aquaticus*	73	528
—— *aureus*	73	527
—— *cordifolius*	72	524*
—— crispus	71	523
—— *digynus*	69	520
—— *glomeratus*	70	522
—— Hydrolapathum	73	528
—— maritimus	72	527
—— *Nemolapathum*	70	
—— obtusifolius	71	524
—— palustris	72	526
—— pratensis	71	523**
—— pulcher	72	525
—— sanguineus	70	521
Sambucus Ebulus	35	444
—— nigra	35	445
Sanicula europæa	2	380
Scandix *Anthriscus*	28	433
—— *Cerefolium*	28	432
—— *odorata*	30	436
—— Pecten-Veneris	27	430
Scheuchzeria palustris	74	531
Scilla autumnalis	54	486
—— bifolia	54	485
—— *nutans*	55	487
—— verna	54	484
Selinum palustre	21	417
Seseli Libanotis	17	409
—— *pumilum*	6	386
Sibbaldia procumbens	41	457
Silaus pratensis	18	411
Sison Amomum	8	390
—— *inundatum*	7	389
—— *segetum*	5	385
—— *verticillatum*	9	393
Sium angustifolium	11	398
—— *inundatum*	7	389
—— latifolium	11	397
—— *nodiflorum*	7	387
—— *repens*	7	388
—— *Sisarum*	11	
—— *verticillatum*	9	393
Smyrnium Olusatrum	33	440
Staphylea pinnata	36	446
Statice *Armeria*	38	450
—— *binervosa*	39	451*
—— Limonium	39	451
—— *Limonium β*	39	451*
—— reticulata	39	452
—— spathulata	39	451*
Tamarix gallica	36	447
Tofieldia palustris	75	534
Tordylium *latifolium*	26	426
—— maximum	23	422

	Page.	Tab.
Tordylium officinale	23	421
Torilis Anthriscus	26	427
—— infesta	26	428
—— nodosa	26	429
Trientalis europæa	79	540
Triglochin maritimum	74	533
—— palustre	74	532
Trinia glaberrima	6	386
Tulipa sylvestris	49	472
Vaccinium Myrtillus	83	551
—— *Oxycoccos*	84	554
—— uliginosum	83	552
—— Vitis-Idæa	84	553
Viburnum Lantana	34	442
—— Opulus	34	443

INDEX

OF THE ENGLISH NAMES

IN VOL. III.

[Synonyms and names incidentally introduced are printed in Italics.]

	Page.	Tab.
ALEXANDERS, common	33	440
Angelica, garden	20	414
—— wild	20	415
Arrow-grass, marsh	74	532
—— sea-side	74	533
Asparagus, common	56	490
Bald-money	18	412
Barberry	44	462
Beaked-Parsley, common	28	433
—— garden	28	432
—— wild	28	431
Bethlehem-star, common	53	482
—— drooping	53	483
—— spiked	53	481
—— *yellow*	52	480
Bilberry, common	83	551
—— great	83	552
Bindweed, black	94	575
Bird's-nest	24	423
Bistort, great	93	571
—— small	93	572
—— viviparous alpine	93	572
Bladder-nut	36	446
Bladder-seed, Cornish	32	439
Bog-Asphodel, Lancashire	68	519
Buck-wheat, climbing	94	575
—— common	94	574
Burnet-Saxifrage,common	10	395
—— great	10	396
Bur-Parsley, great	25	426
—— small	25	425
Caraway, common	9	392

	Page.	Tab.
Caraway, whorled	9	393
Carrot, sea-side	24	424
—— wild	24	423
Celery, wild	5	384
Chervil, broad-leaved	29	435*
—— garden	28	432
—— rough	29	434
—— tawny-seeded	29	435
—— wild	28	431
Chickweed Winter-green	79	540
Chives	51	479
Cicely, sweet	30	436
Codlings and Cream	80	543
Coriander, common	33	441
Cow-bane, water	4	383
Cow-berry	84	553
Cow-Parsley	28	431
Cow-Parsnep	22	420
Cow-weed	28	431
Cranberry, *American*	85	
—— common	84	554
Daffodil, common	47	468
—— chequered	48	471
Danewort	35	444
Dock, alpine	72	524*
—— bloody-veined	70	521
—— broad-leaved	71	524
—— curled	71	523
—— fiddle	72	525
—— golden	72	527
—— grainless water	71	523*
—— great water	73	528
—— meadow	71	523**

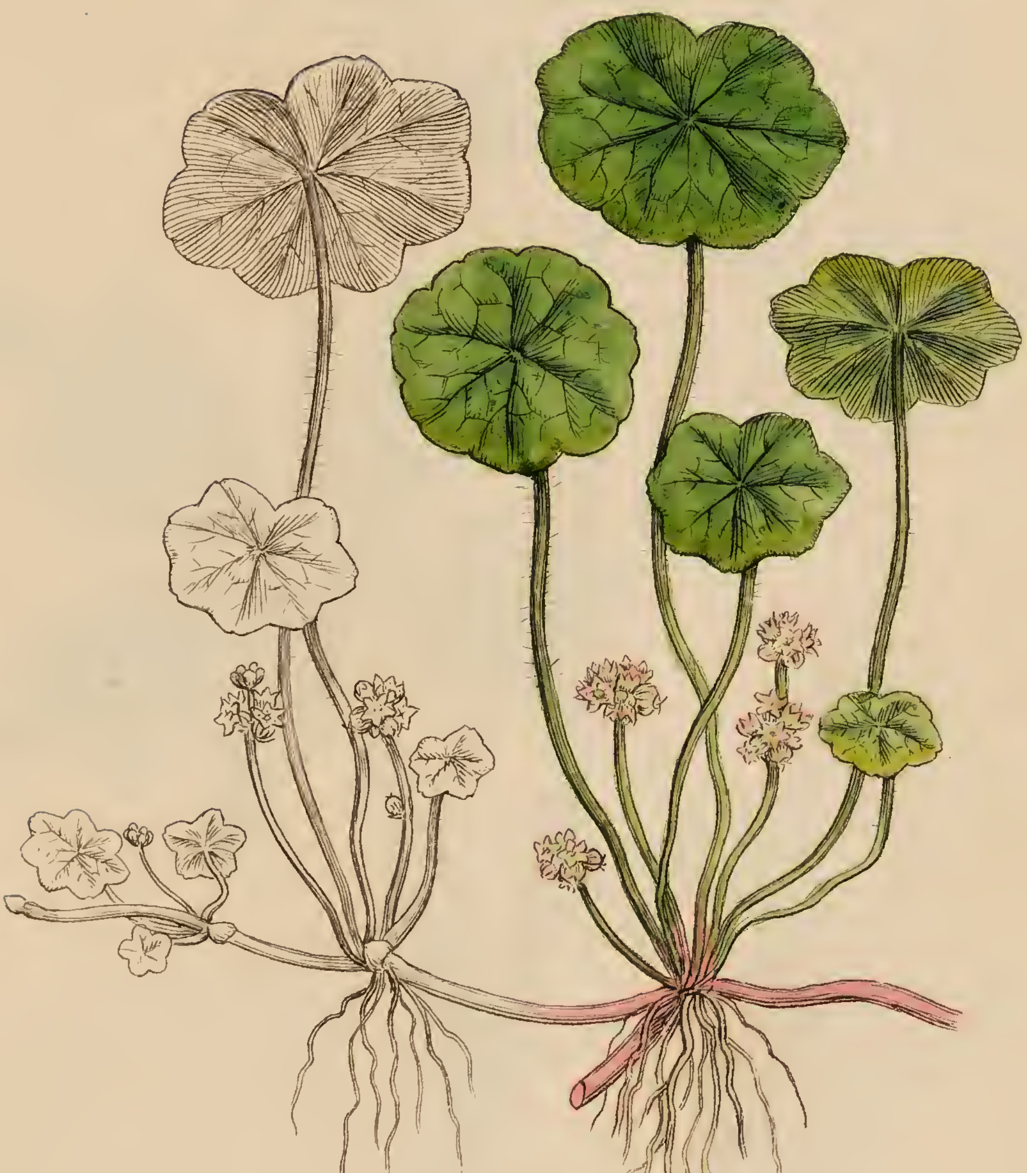
	Page.	Tab.
Dock, sharp-leaved	70	522
—— tawny marsh	72	526
Earth-chestnut	10	394
Earth-nut	10	394
Elder, common	35	445
—— dwarf	35	444
—— *Parsley-leaved*	36	
Eryngo, field	3	382
—— sea	3	381
Evening-Primrose	79	541
Fennel, common	16	408
Flax, common	40	453
—— narrow-leaved pale.	40	455
—— perennial blue	40	454
—— purging	41	456
Flowering-Rush	97	579
Fool's-Parsley	15	407
Fritillary, common	48	471
Gagea, yellow	52	480
Garlic, broad-leaved	51	478
—— Crow	51	477
—— great round-headed	50	473
—— mountain	50	475
—— sand	50	474
—— wild	51	476
—— streaked field	51	476
Gilliflower, sea	38	450
Goose-corn	65	511
Gout-weed	8	391
Grape-Hyacinth	55	488
Grass of Parnassus	37	449
Grig	88	560
Guelder-rose, common	34	443
—— mealy	34	442
Guinea-hen-flower	48	471
Hairy-Rush, common wood	67	515
—— curved mountain	68	518*
—— field	67	517
—— great wood	66	514
—— narrow-leaved wood	67	516
—— spiked mountain	67	518
Hare-bell	55	487
Hare's-ear, common	12	400
—— falcate-leaved	13	401*
—— narrow-leaved	12	399
—— slender	12	401
Hart-wort, great	23	422
—— small	23	421
Heath, *common*	88	560
—— Cornish	87	559
—— cross-leaved	86	557
—— fine-leaved	86	558
—— fringed-leaved	87	559*
—— Mediterranean	87	558*
—— St. Dabeoc's	85	556

	Page.	Tab.
Hedge-Parsley, knotted	26	429
—— spreading	26	428
—— upright	26	427
Hemlock, common	31	438
Herb-Gerarde	8	391
Herb-Paris	94	576
Hog's-Fennel, broad-leav^{d}	21	418
—— marsh	21	417
—— sea	21	416
Hog-weed	22	420
Holly, sea	3	381
Honewort, glabrous	6	386
Hyacinth, wild	55	487
Jointed-Rush, black-head^{d}	62	503*
—— blunt-flowered	63	504
—— lesser bog	63	505
—— sharp-flowered	62	502
—— shining-fruited	62	503
Knot-grass	93	573
Lily of the Valley	57	491
Lily, Snake's-head	48	471
Ling	88	560
Linseed	40	453
Lovage, garden	17	
—— Scottish	17	410
Maple, common	89	563
—— greater	89	562
Marsh-wort, creeping	7	388
—— least	7	389
—— procumbent	7	387
Masterwort	21	418
Meadow-Saffron	76	535
Meadow-Saxifrage, mountain	17	409
Meal-tree	34	442
Menziesia, Irish	85	556
—— Scottish	85	555
Meu	18	412
Mezereon	90	564
Milk-Parsley	21	417
Mill-mountain	41	456
Monk's Rhubarb	72	524*
Moschatell, tuberous	95	577
Mountain-Sorrel	69	520
Mouse-tail	43	461
Narcissus of the Poets	47	469
—— pale	48	470
Parsley, common	5	384*
—— corn	5	385
Parsnep, common	22	419
Penny-wort, marsh	2	379
Pepper-Saxifrage, meadow	18	411
Perce-neige	46	466
Persicaria, amphibious	91	566
—— biting	92	569

	Page.	Tab.
Persicaria, pale-flowered	92	568
—— small creeping	92	570
—— spotted	91	567
Prickly-Samphire, sea	31	437
Primrose-peerless	48	470
Ramsons	51	478
Red-Rot	43	
Rose-bay Willow-herb	80	542
Rush, Baltic	62	501*
—— clustered alpine	64	510
—— common	61	498
—— dense-headed	65	511*
—— hard	61	500
—— moss	65	511
—— round-fruited	63	506
—— slender-spreading	64	507
—— soft	61	499
—— thread	61	501
—— three-leaved	64	509
—— three-flowered	66	513
—— Toad	64	508
—— two-flowered	65	512
Samphire, sea	19	413
Sanicle, wood	2	380
Scheuchzeria, marsh	74	531
Scottish Asphodel	75	534
Sea-Heath, powdery	45	464
—— smooth	45	463
Sea-Lavender, common	39	451
—— matted	39	452
—— spathulate	39	451*
Sea-Parsnep	31	437
Sea-Rush, greater sharp	60	497
—— lesser sharp	60	496
Shepherd's-Needle	27	430
Shunis	17	410
Sibbaldia, procumbent	41	457
Skirret	11	
Smallage	5	384
Snake-weed	93	571
Snowdrop, common	46	466
Snowflake, summer	46	467
Solomon's-Seal, angular	58	494
—— common	58	493
—— narrow-leaved	58	492
Sorrel, common	73	529
—— Sheep's	73	530
Sparrow-grass	57	
Sperage	56	490
Spiderwort, mountain	56	489
Spignel	18	412
Spurge-Laurel	90	565
Squill, autumnal	54	486
—— two-leaved	54	485
Squill, vernal	54	484
Star-fruit	77	536
Stone-parsley, bastard	8	390
—— mountain	17	409
Stonewort, hedge	8	390
Strapwort, sand	37	448
Sulphur-weed, sea	21	416
Sundew, great	42	460
—— long-leaved	42	459
—— round-leaved	42	458
Sweet-Flag	59	495
Sycamore	89	562
Tamarix, common	36	447
Thorow-wax	12	400
Thrift, common	38	450
Thrumwort, star-headed	77	536
Tulip, wild	49	472
Venus's Comb	27	430
Water-Dropwort, common	13	402
—— fine-leaved	15	406
—— Hemlock	14	405
—— Parsley	14	403
—— Sulphur-weed	14	404
Water-Elder	34	443
Water-Hemlock	4	383
Water-Hemlock	15	406
Water-Parsnep, broad-leaved	11	397
—— narrow-leaved	11	398
Water-pepper	92	569
Water-Plantain, creeping	78	538*
—— floating	78	539
—— great	77	537
—— lesser	77	538
Water-Purslane	45	465
Water-wort, small hexandrous	96	578
—— small octandrous	96	578*
Way-faring tree	34	442
White-Rot	2	379
Whortle-berry, bog	83	552
—— common	83	551
—— red	84	553
Willow-Herb, alpine	82	550
—— broad smooth-leaved	81	545
—— Chickweed-leaved	82	549
—— French	80	542
—— great hairy	80	543
—— narrow-leaved marsh	82	548
—— pale smooth-leaved	81	546
—— small-flowered hairy	81	544
—— square-stalked	82	547
Yellow-Centaury, perfoliate	89	561

751.

379.



Hydrocotyle vulgaris

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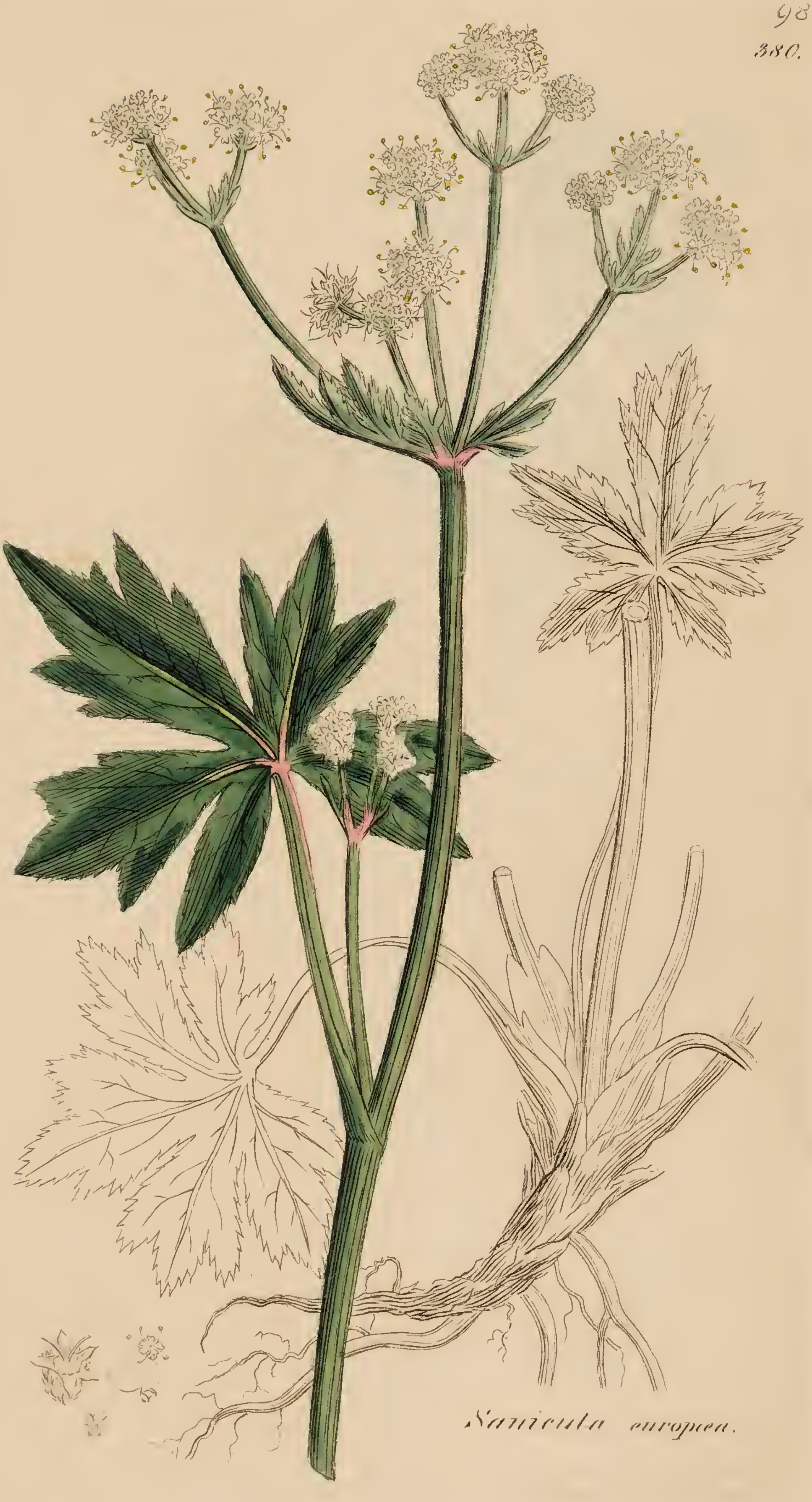
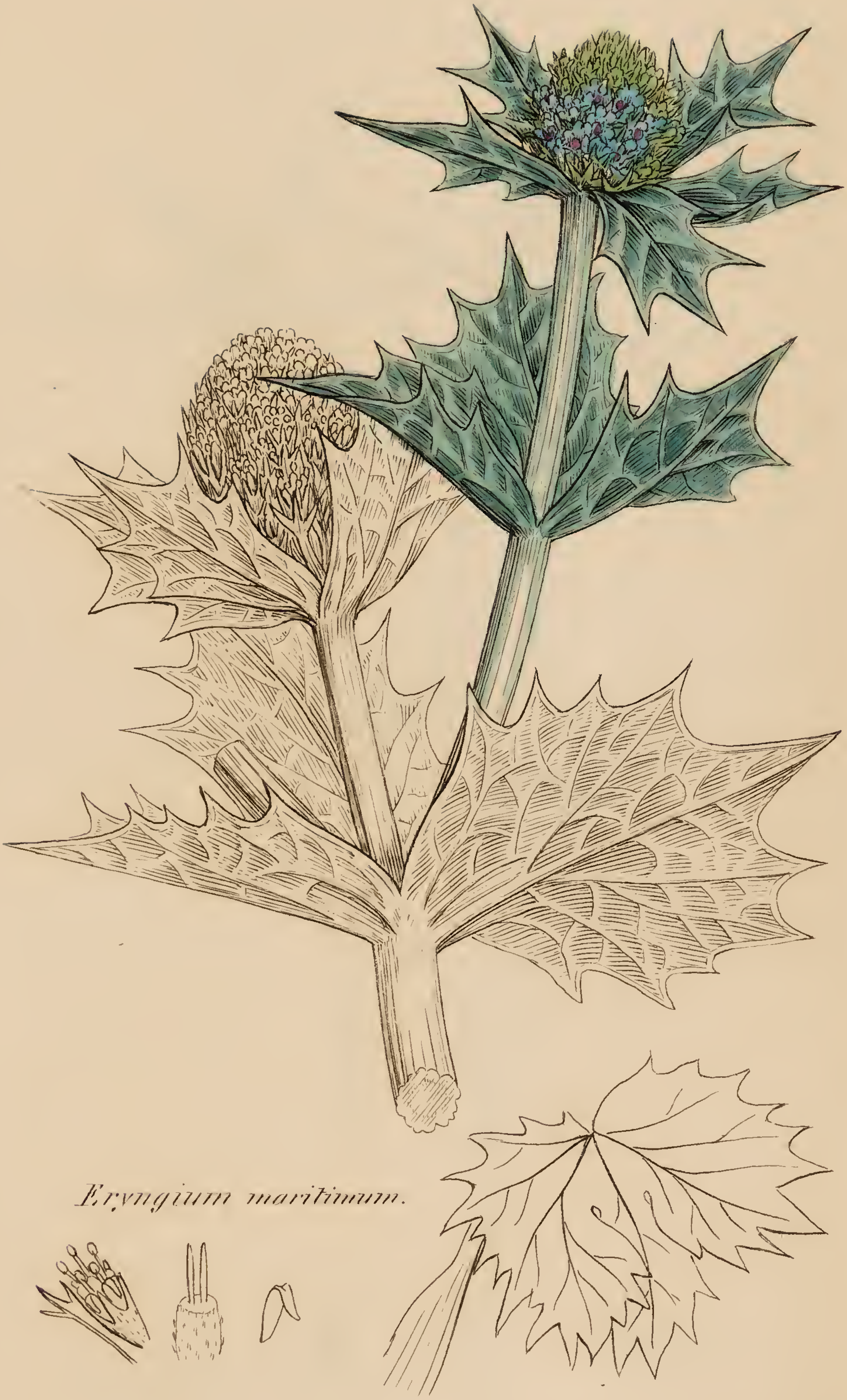
380.



Sanicula europea.



Eryngium maritimum.

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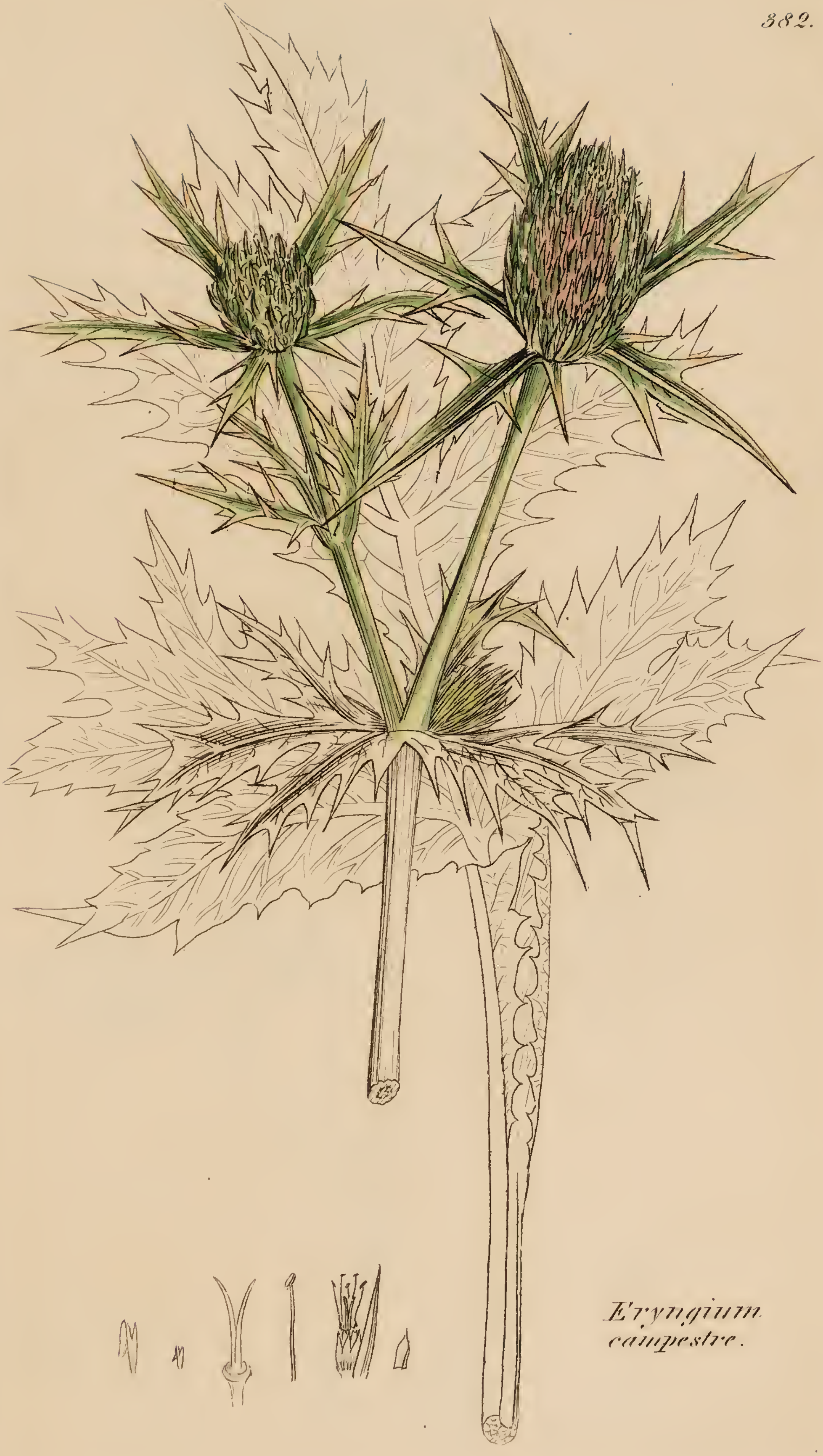
382.



Eryngium campestre.

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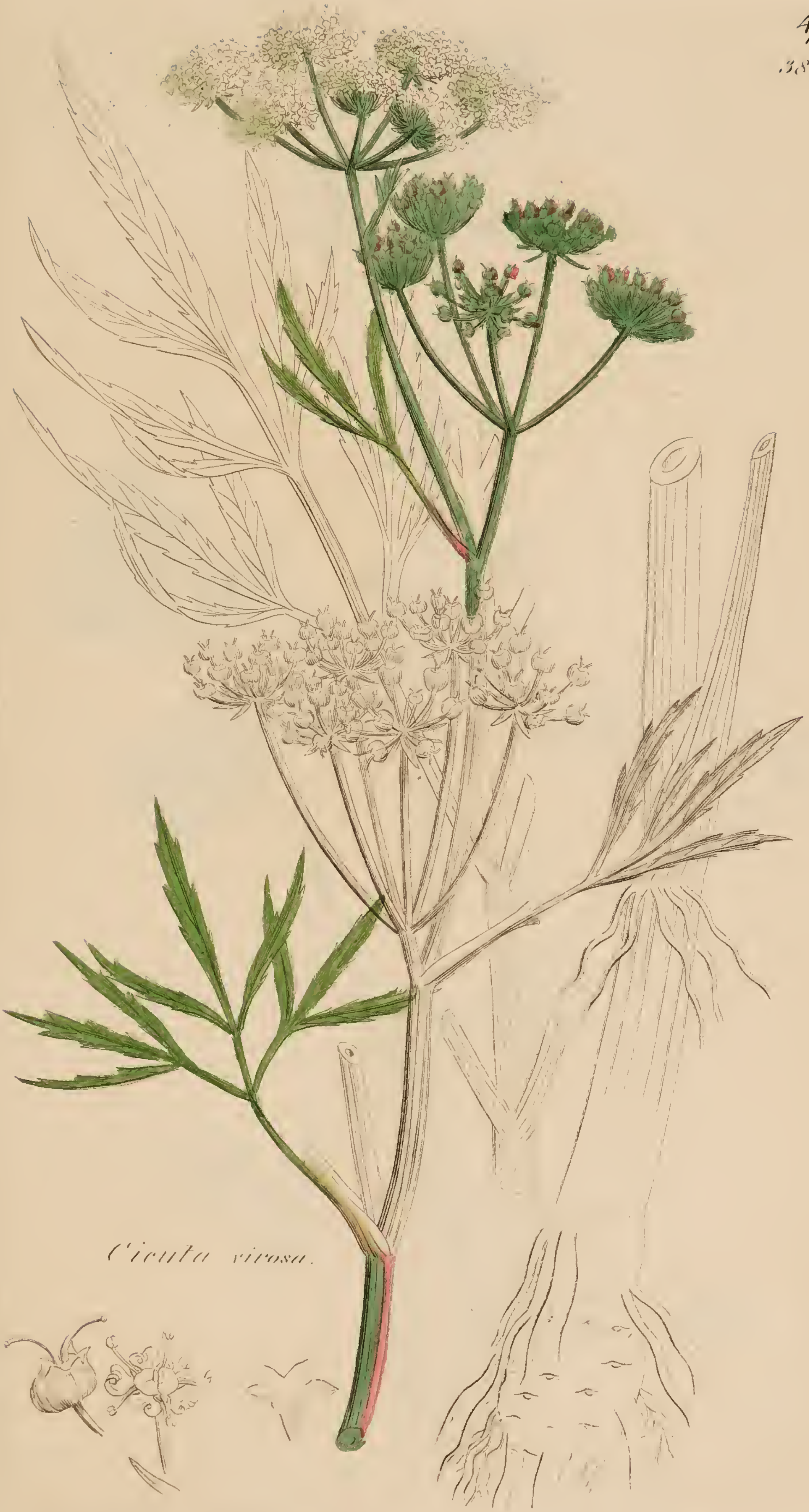
383.



Cicuta virosa.

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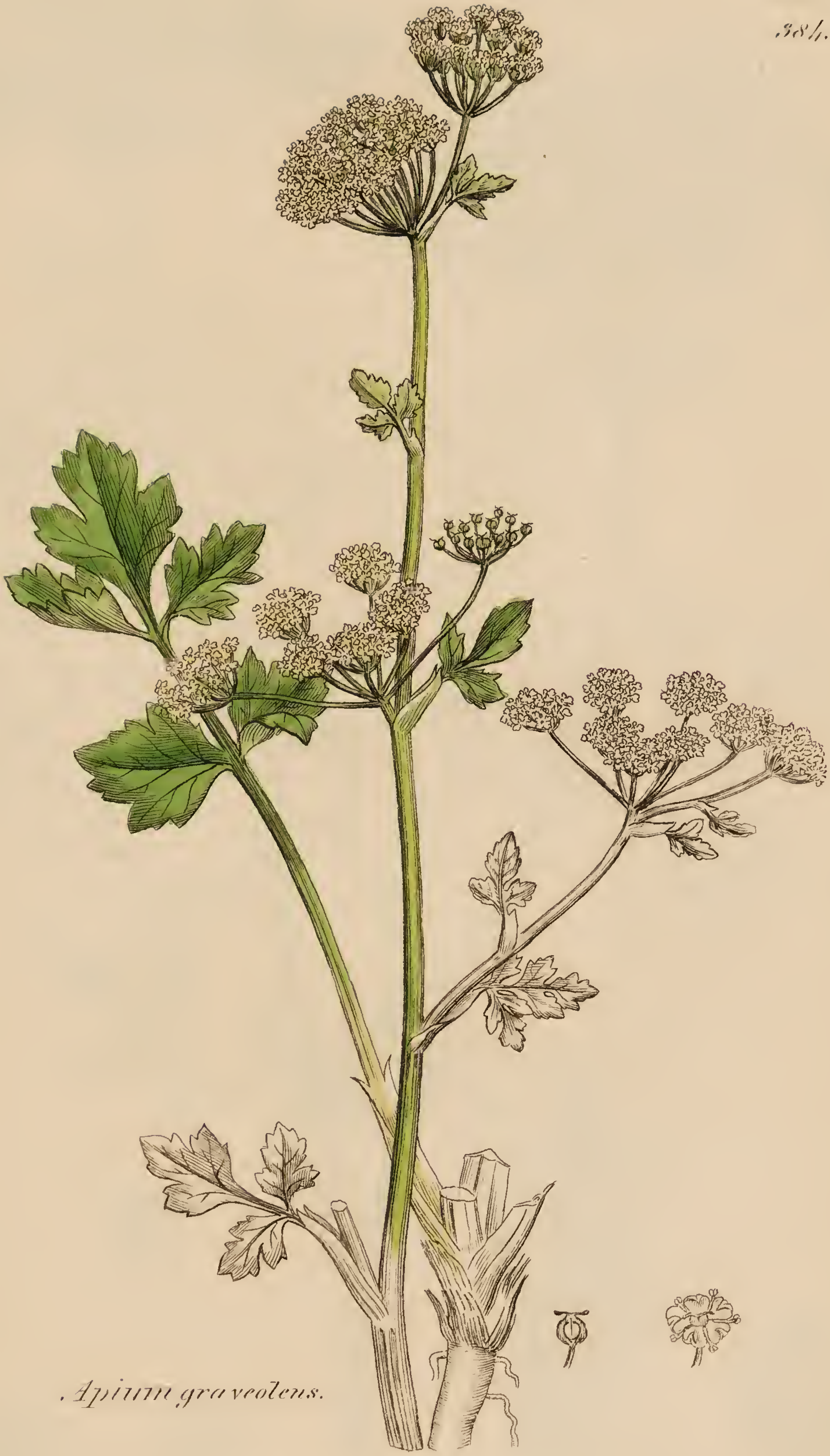

Apium graveolens.

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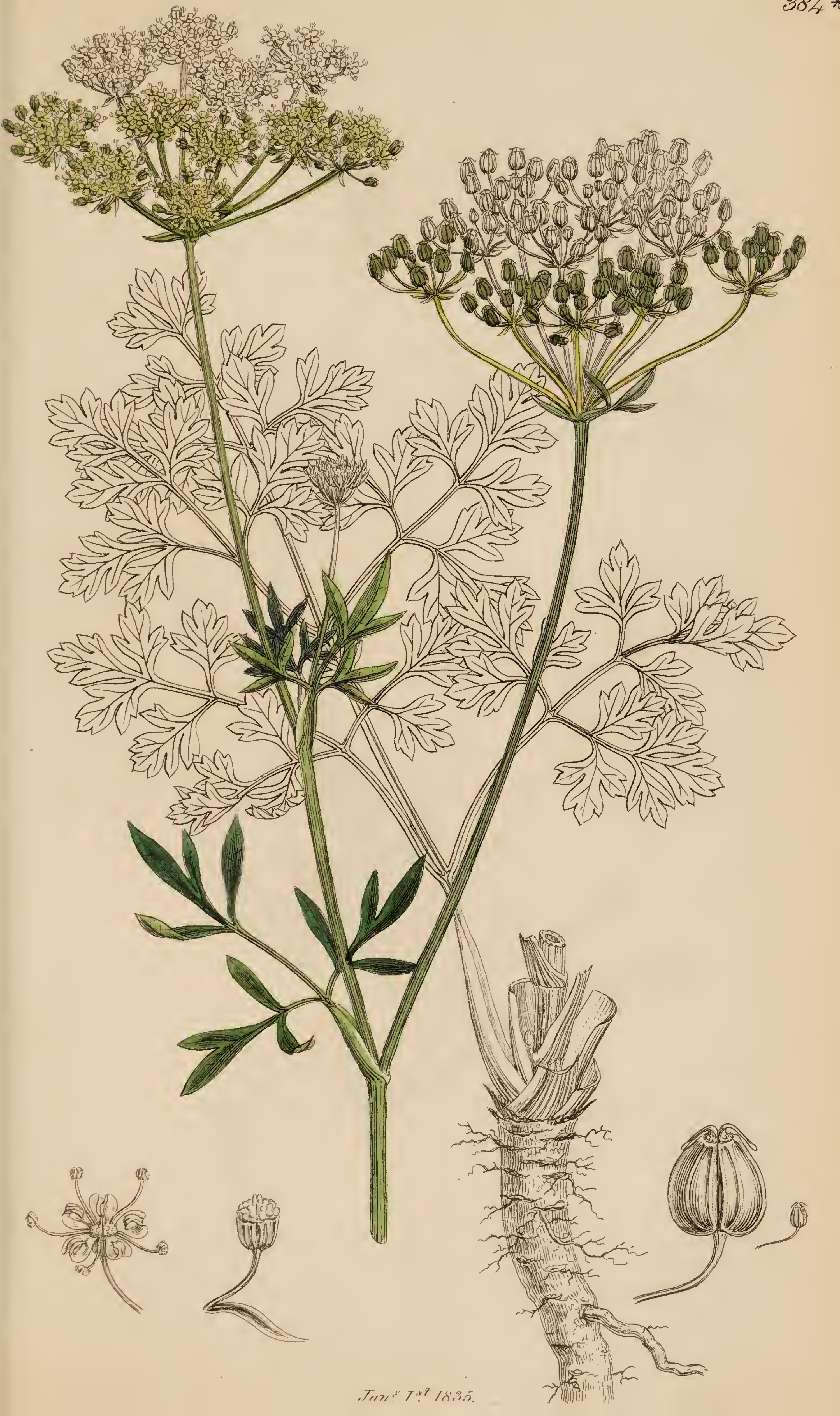

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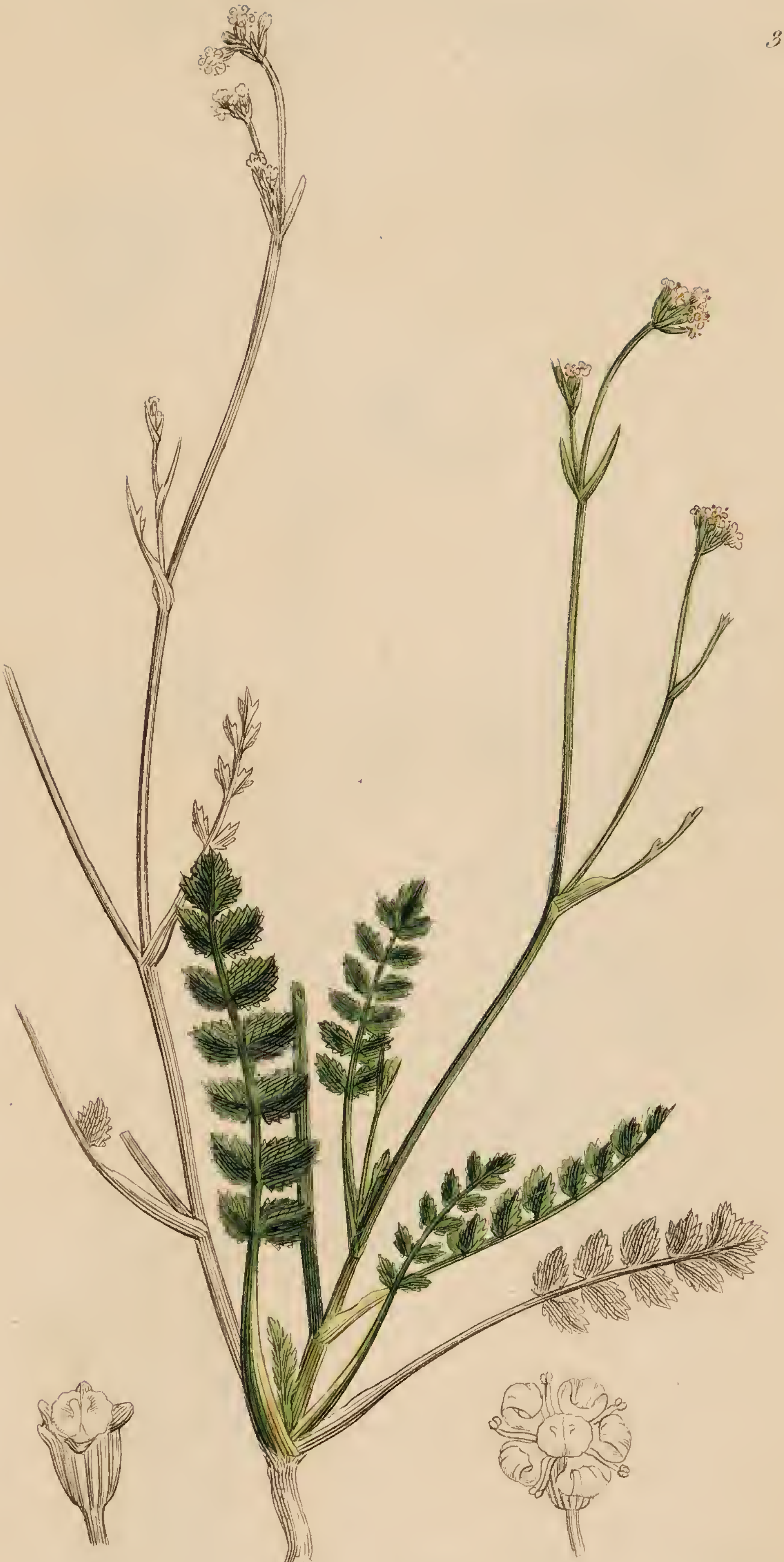

Petroselinum segetum.

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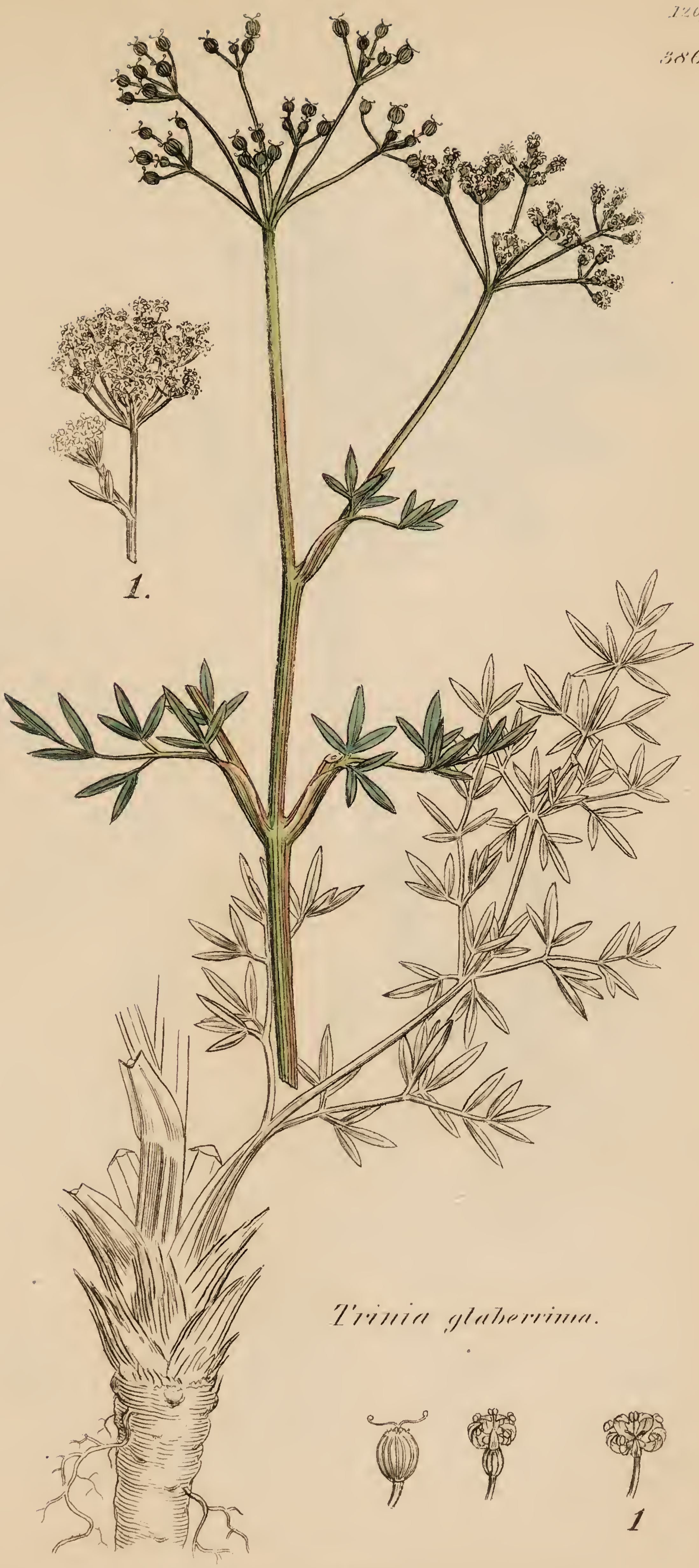

Trinia glaberrima.

Sept.r 1 1803. Publiſhed by Ja.s Sowerby, London.

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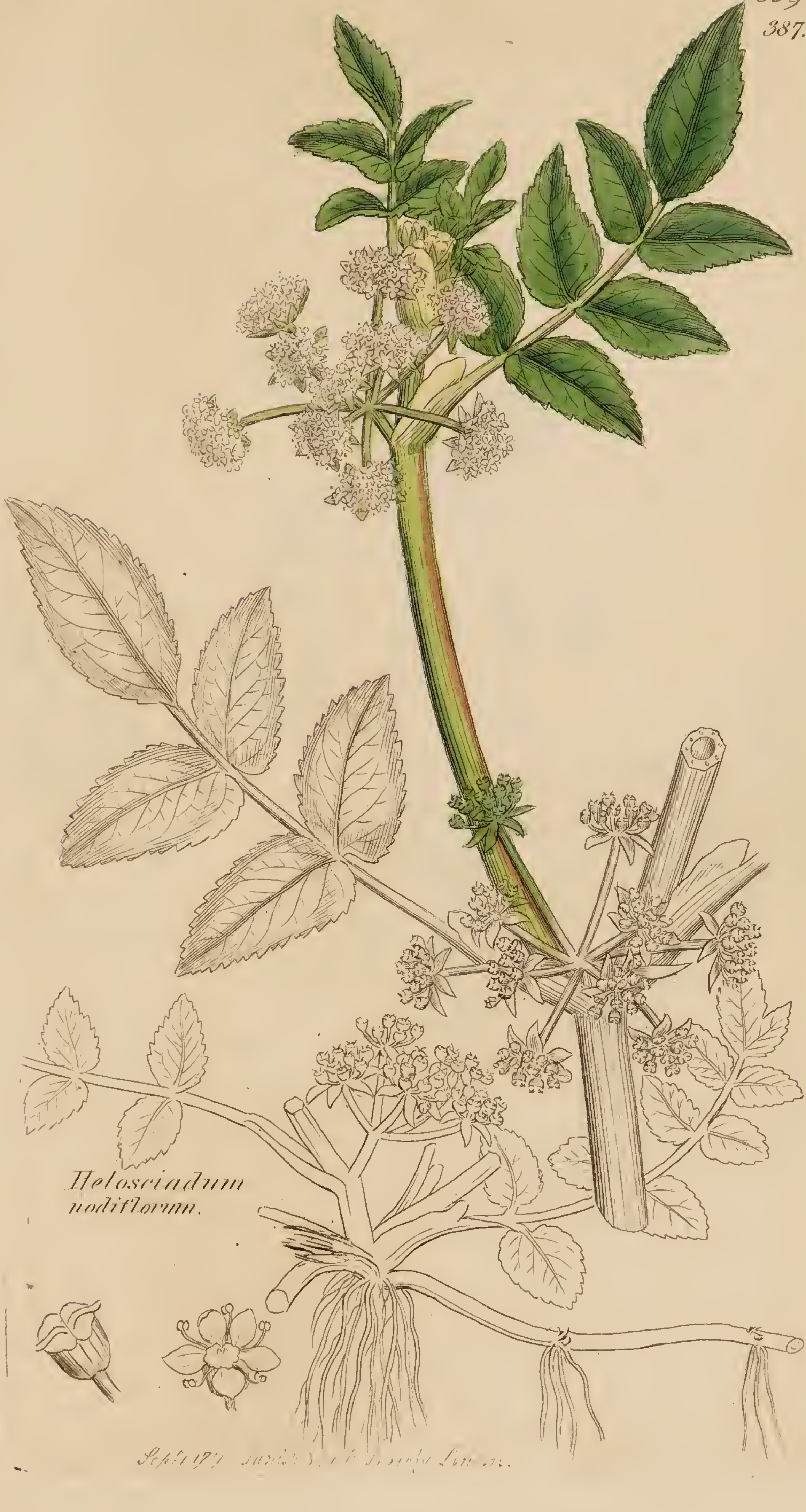

Helosciadum nodiflorum.

Sept 1 1799 Publish'd by J. Sowerby Lond.

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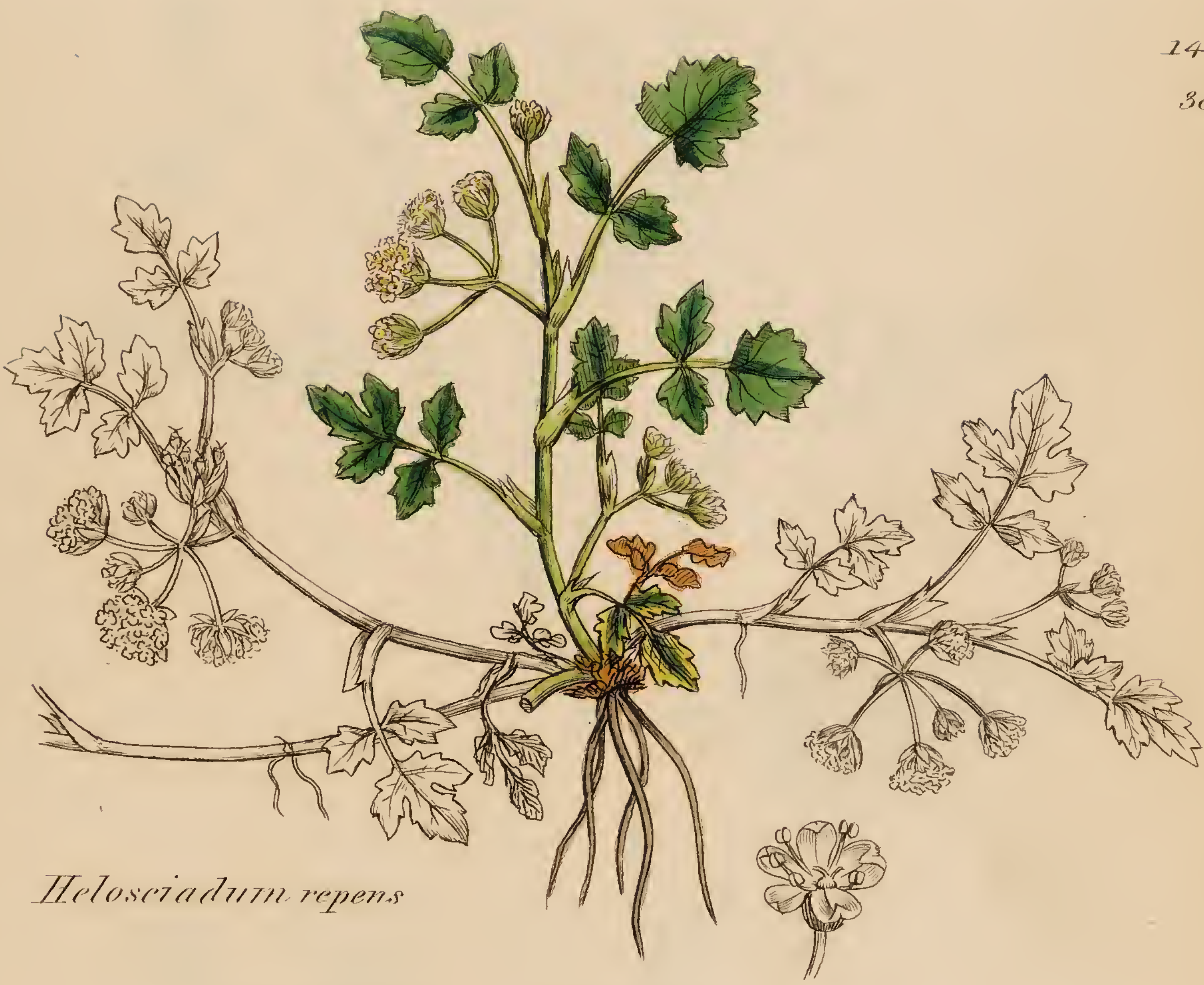

Helosciadum repens

March 1. 1805. Published by Jas. Sowerby, London.

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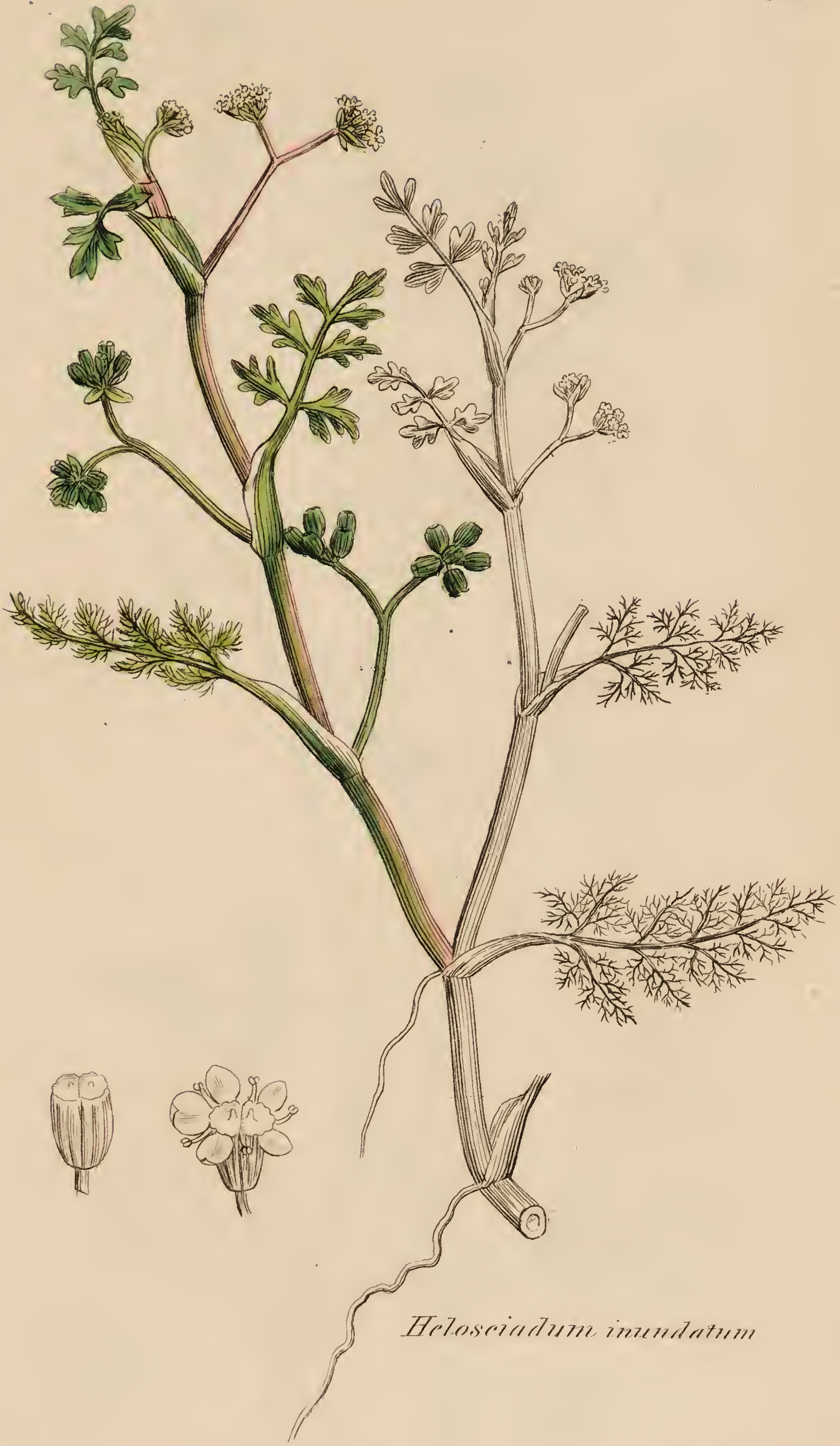
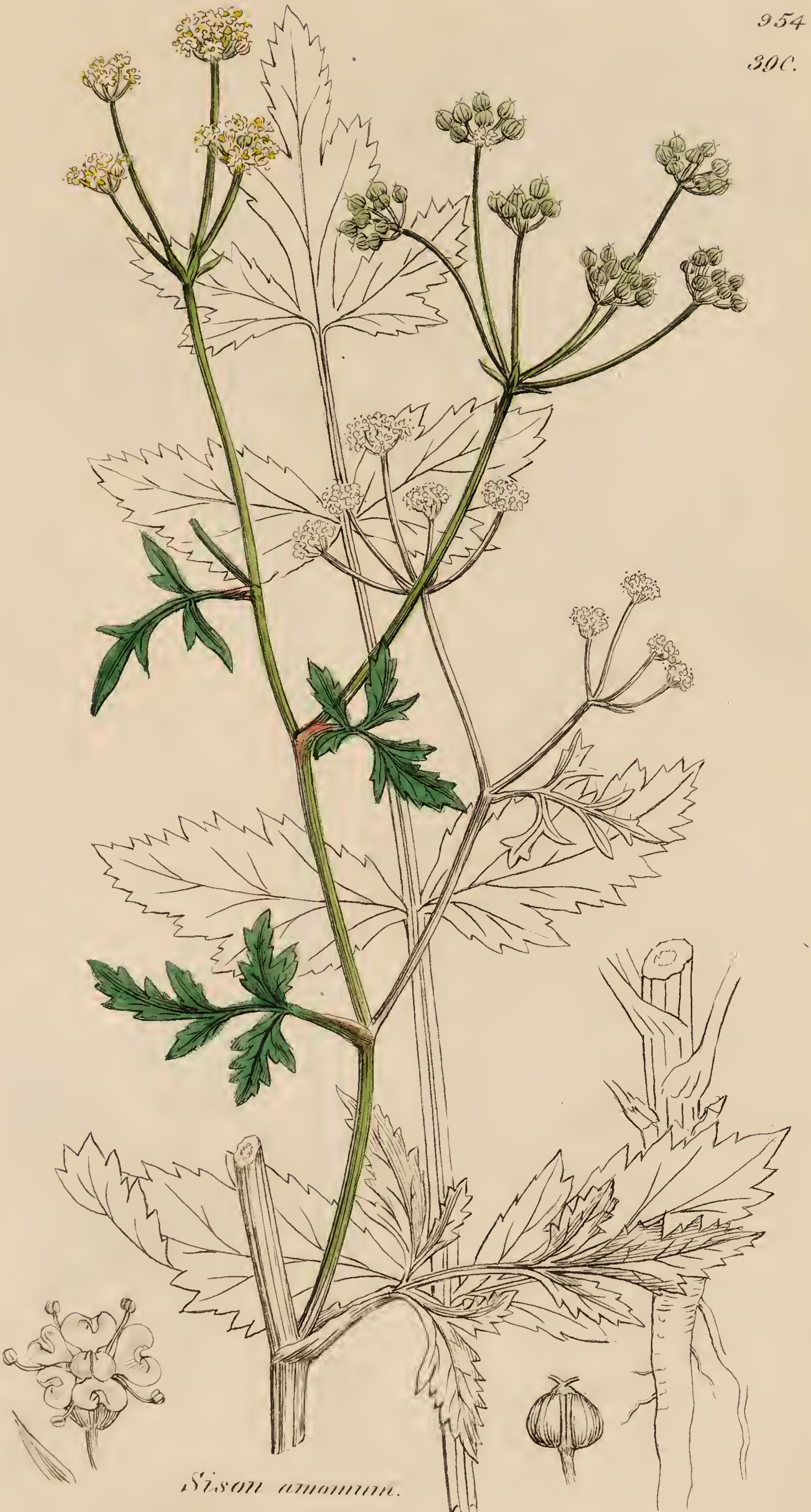


Helosciadum inundatum

J. Sowerby delt. C 1 1 17[illegible]2.

954

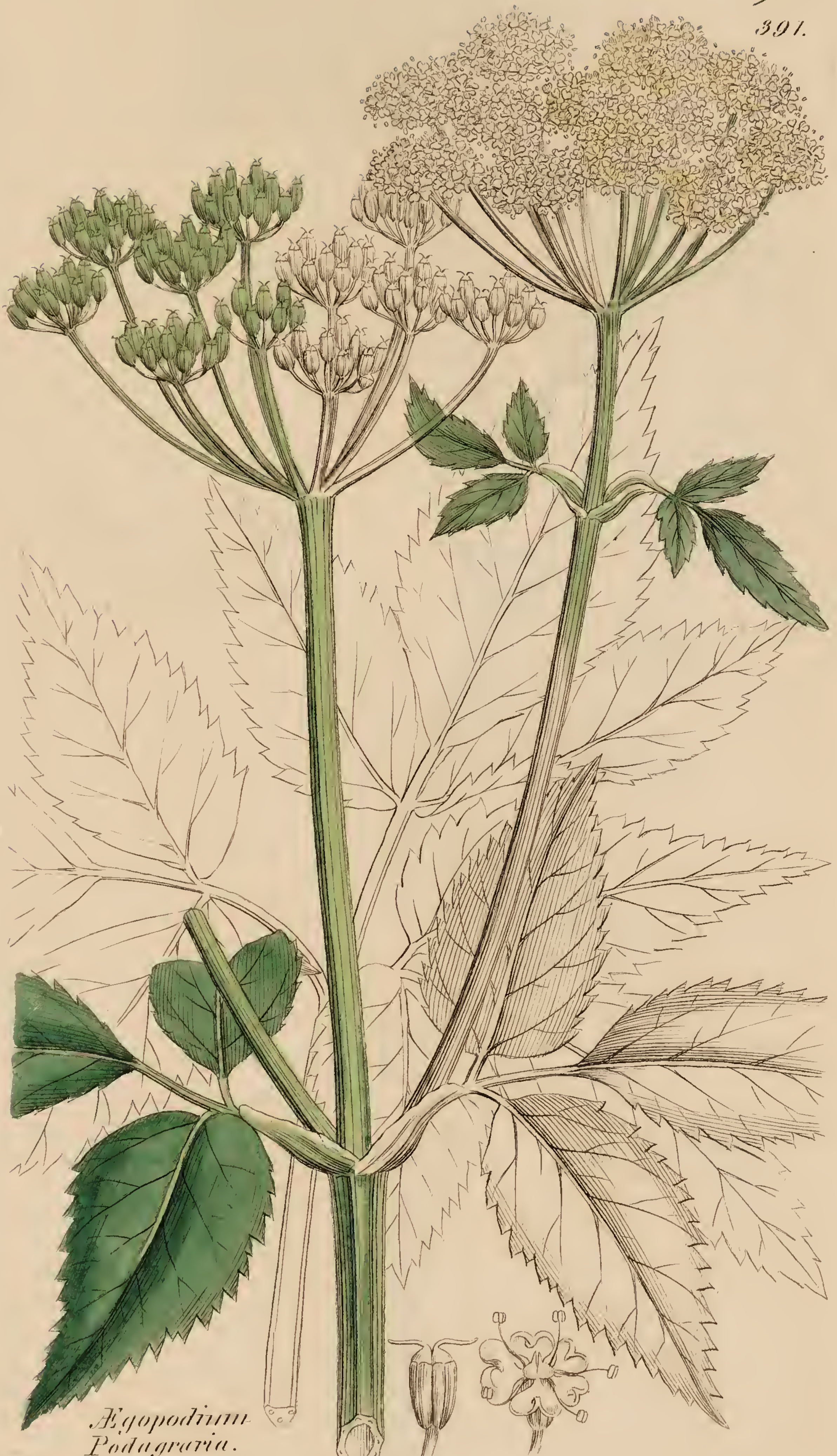
390.



Sison amomum.

Nov. 1. 1801. Published by Jas. Sowerby, London.

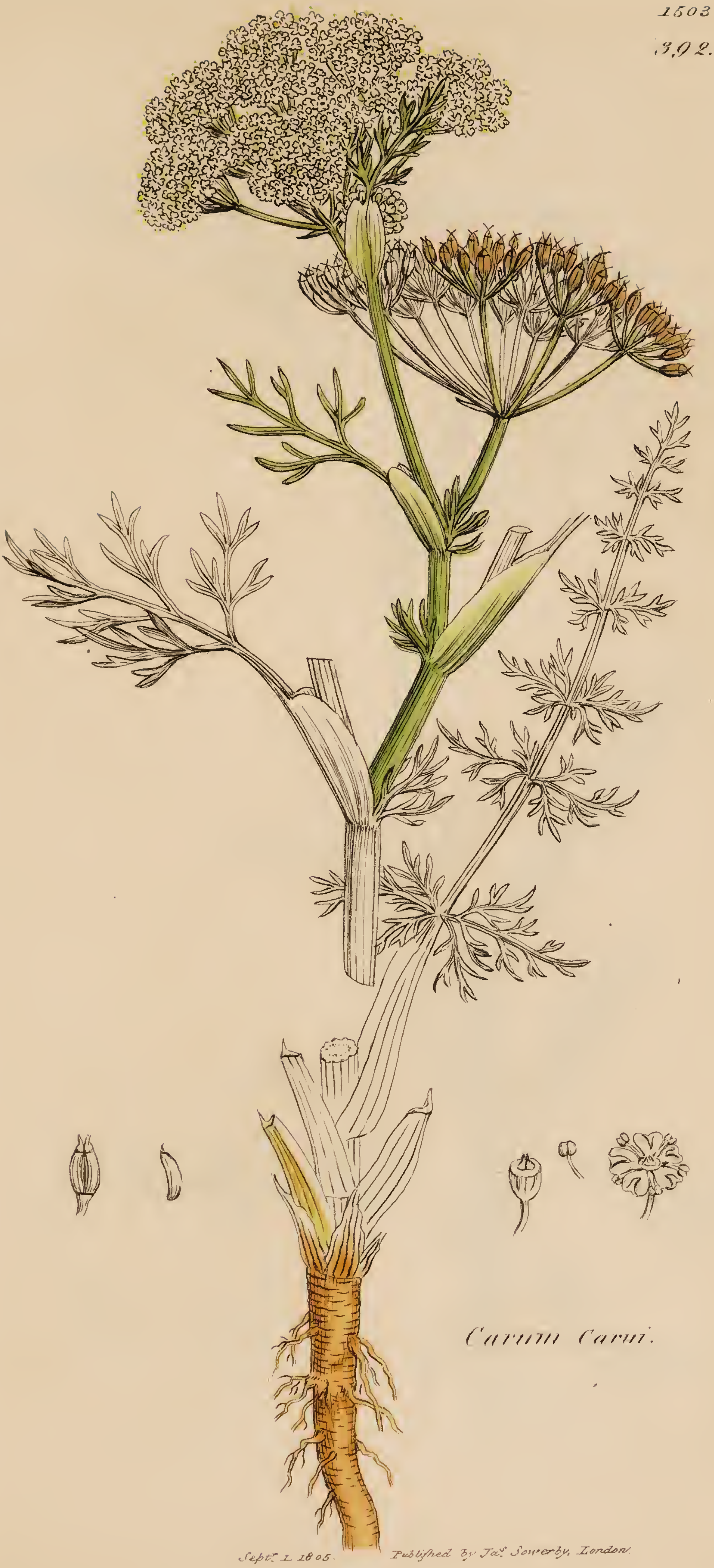
940.
391.



Ægopodium
Podagraria.

1503

392.

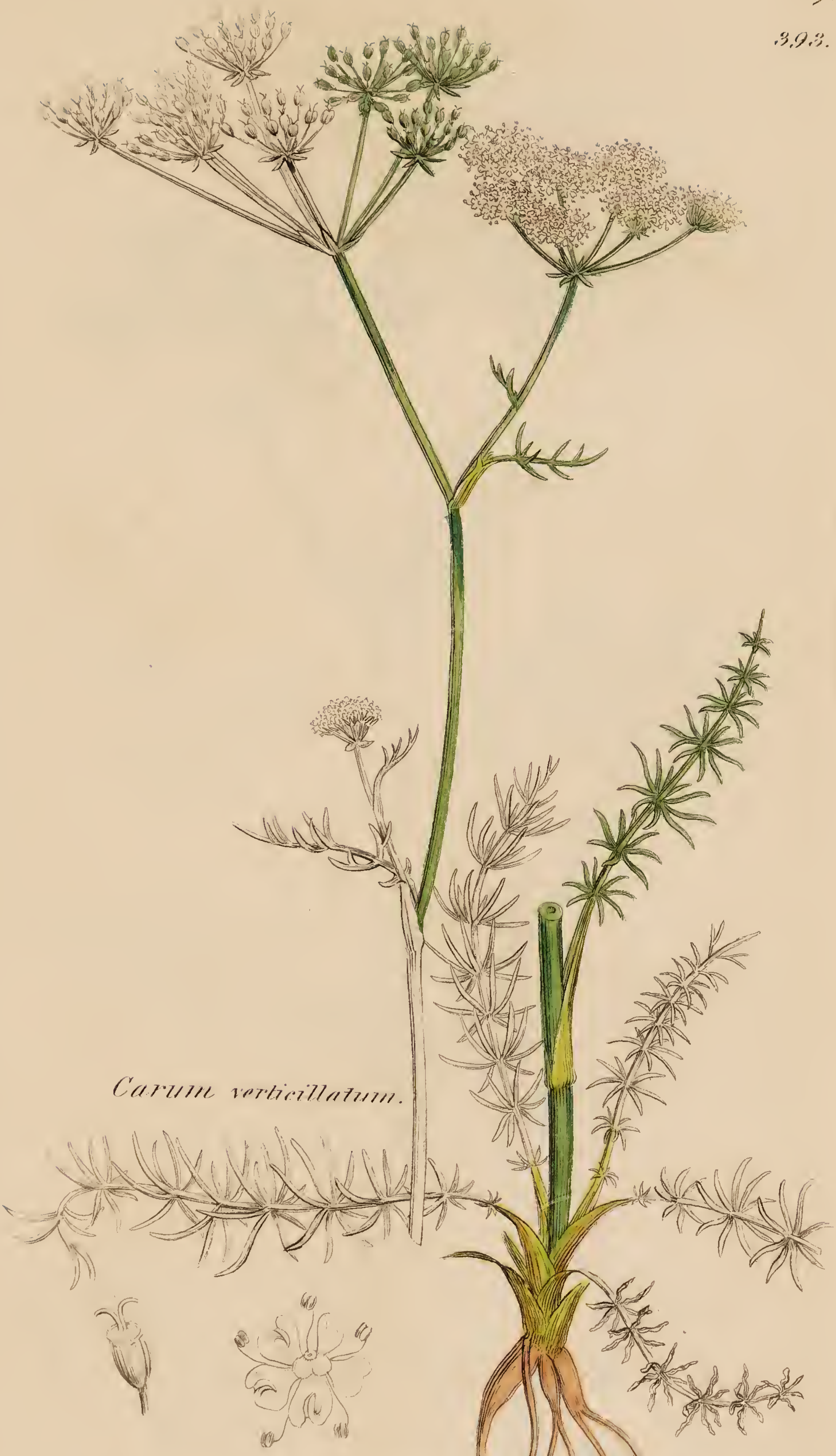


Carum Carui.

Septr. 1. 1805. Published by Jas. Sowerby, London.

395

3.9.3.

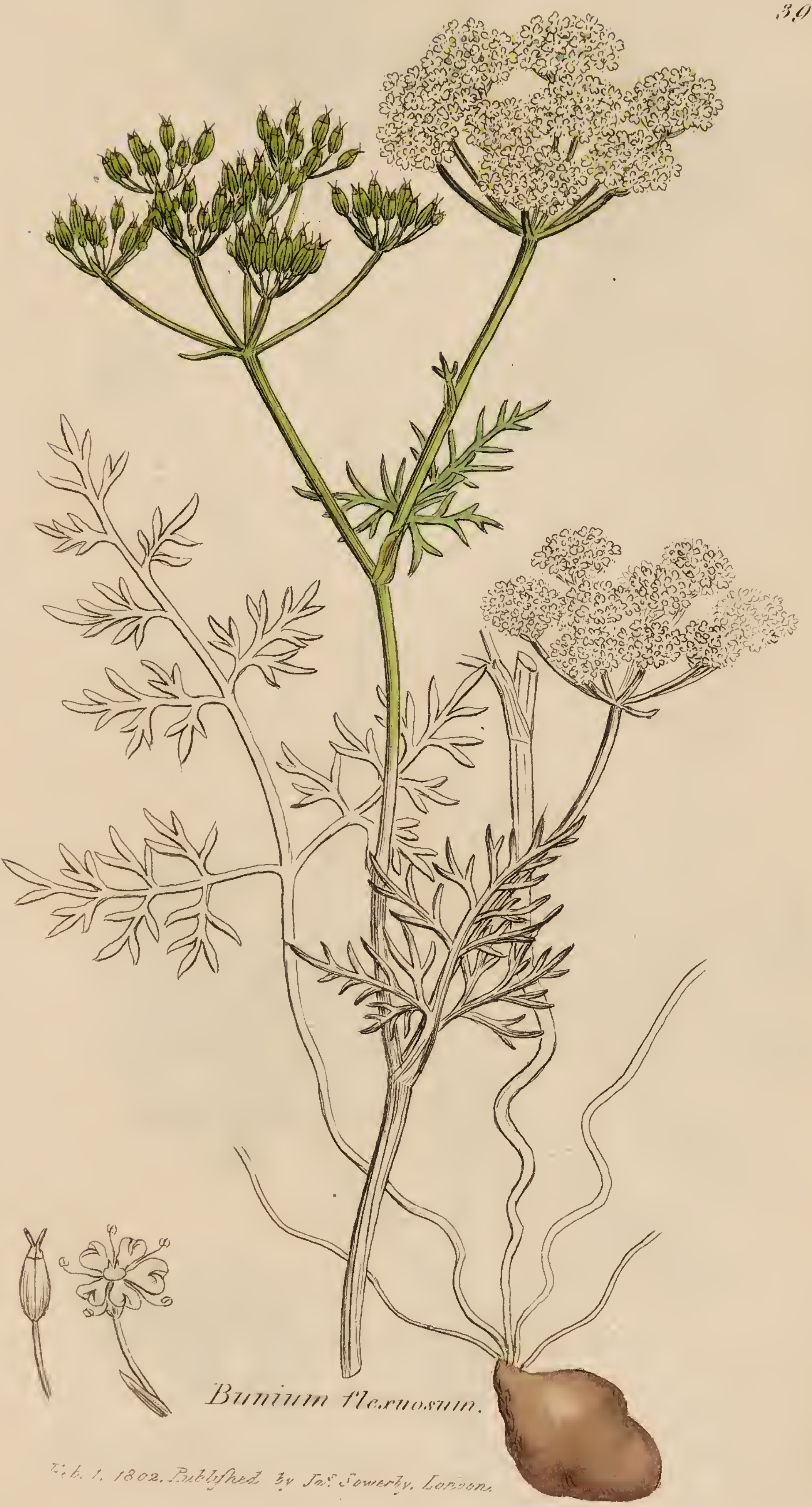


Carum verticillatum.

[illegible]

988

394.

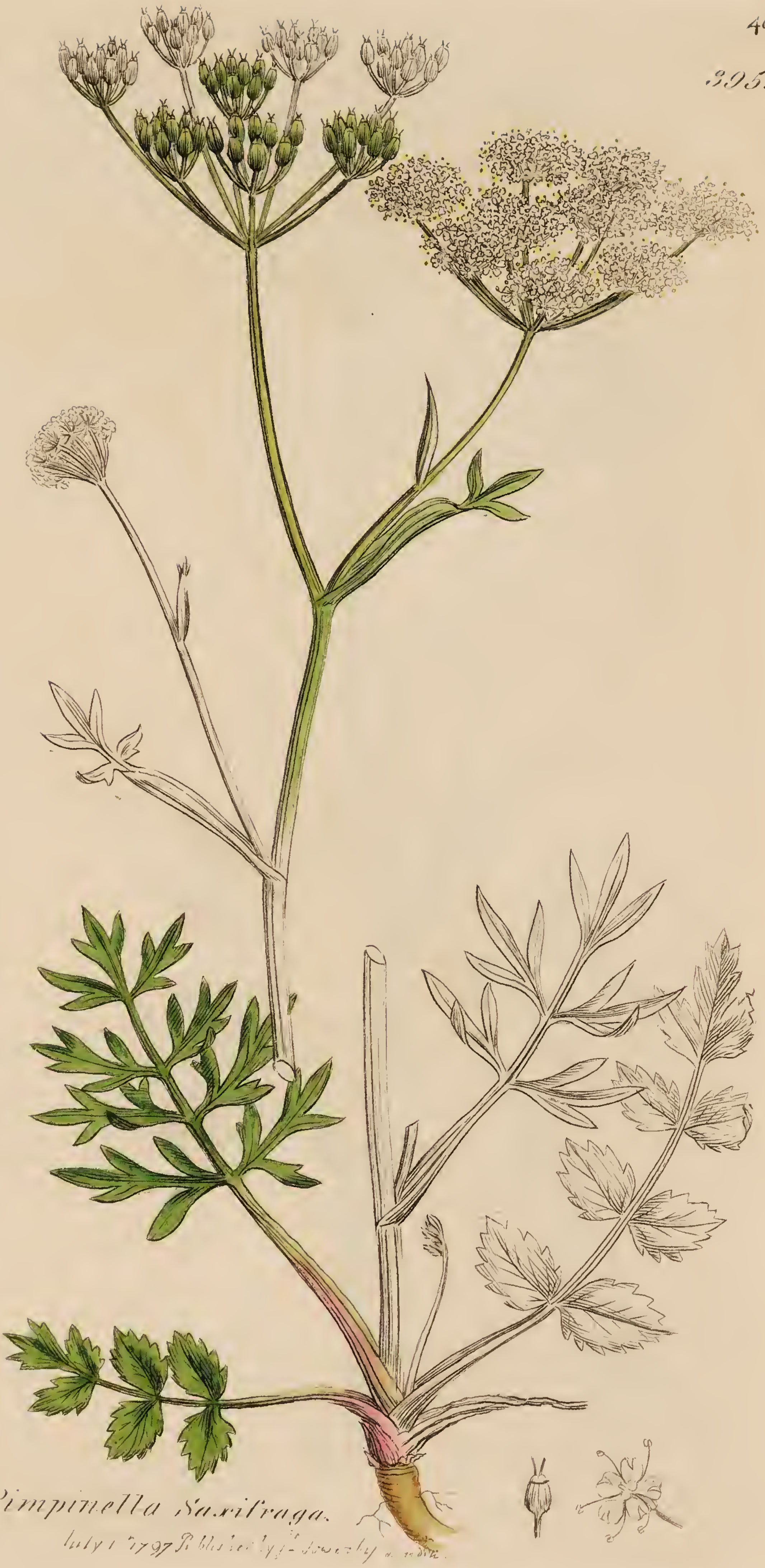


Bunium flexuosum.

Feb. 1. 1802. Publiſhed by Jas. Sowerby, London.

407.

395.

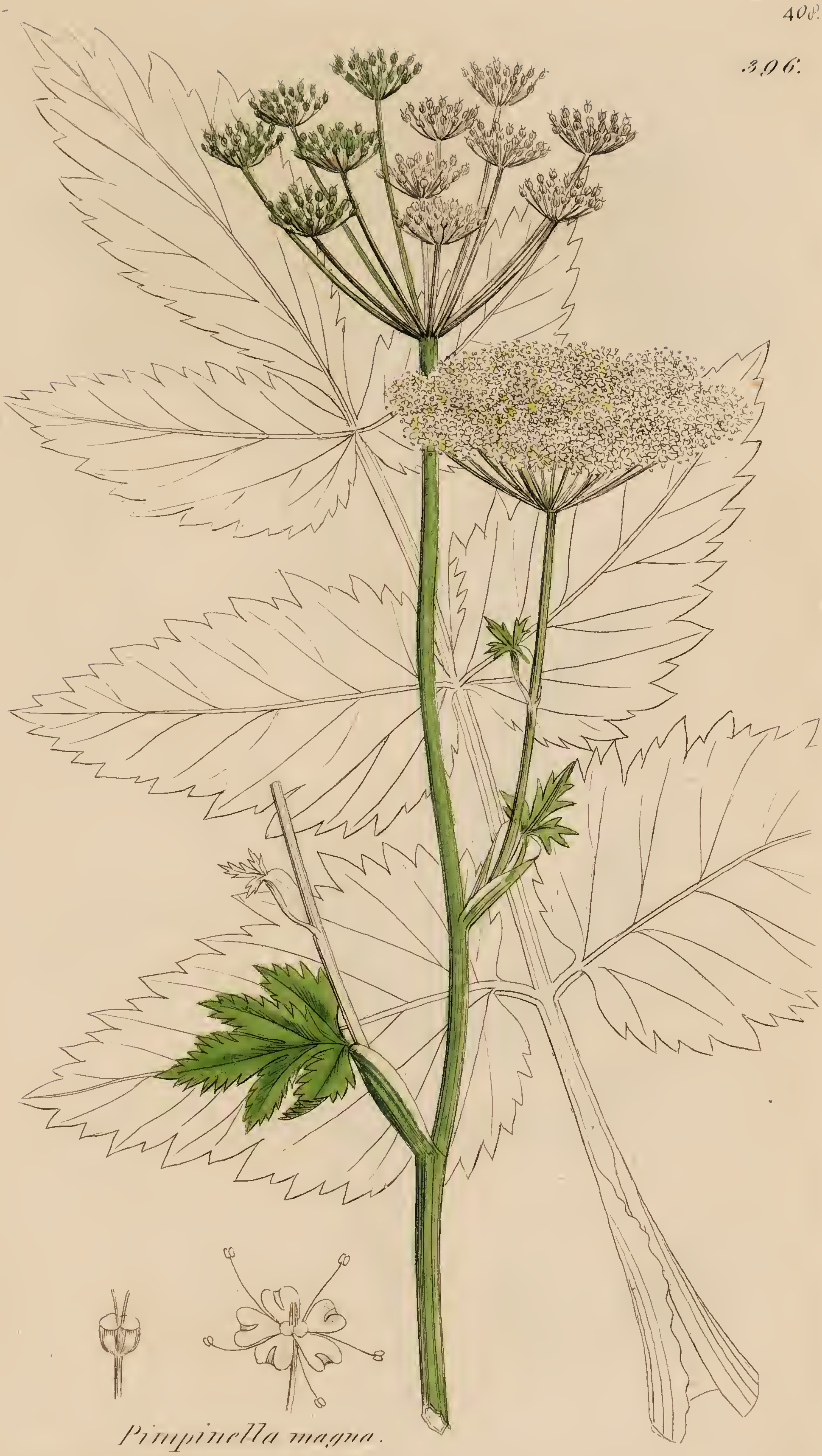


Pimpinella Saxifraga.

July 1 1797 Publish'd by J. Sowerby London.

408.

396.

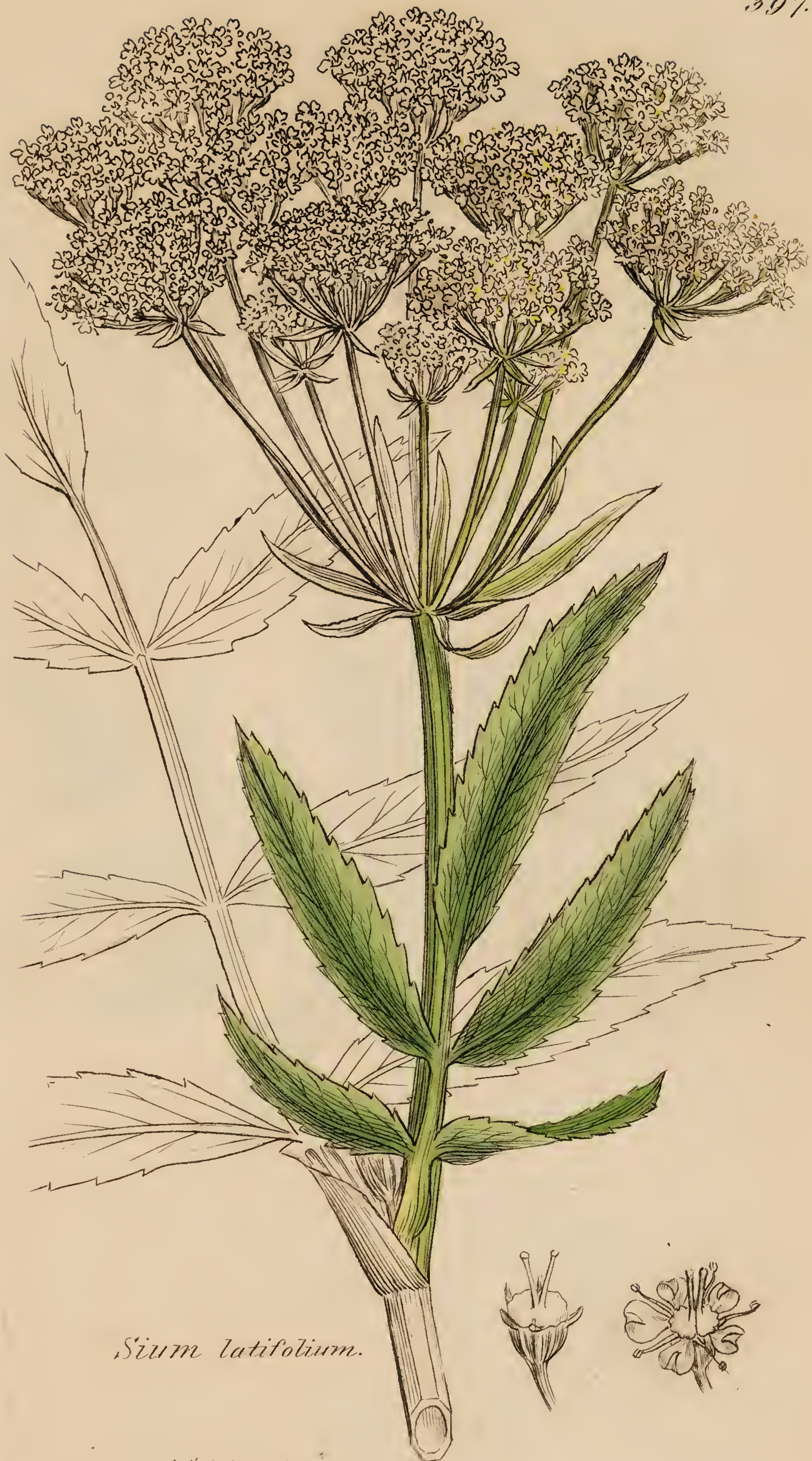


Pimpinella magna.

Jul 1 1797 Published by Jˢ Sowerby London.

204.

397.

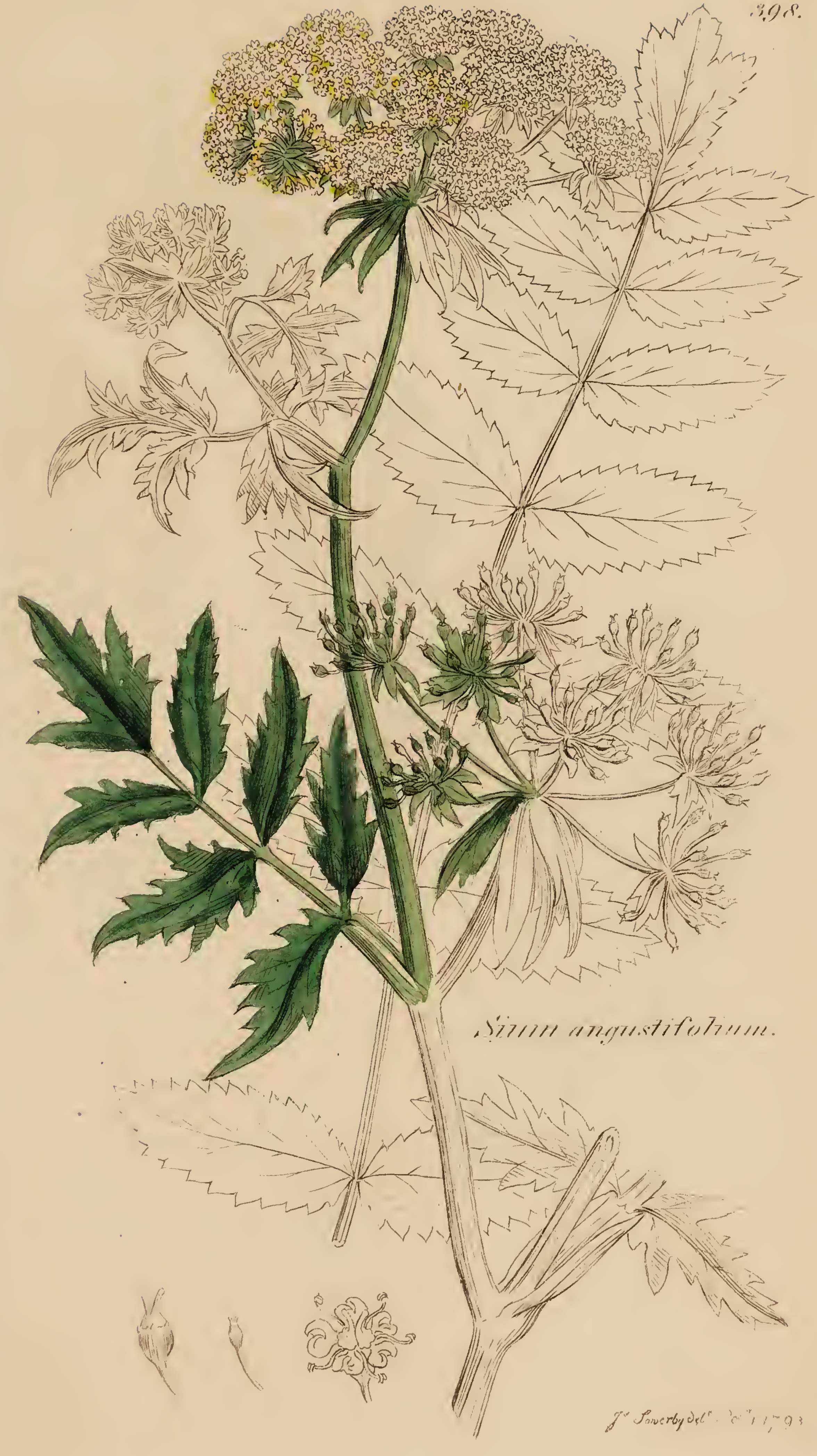


Sium latifolium.

[illegible] 1794

139

398.

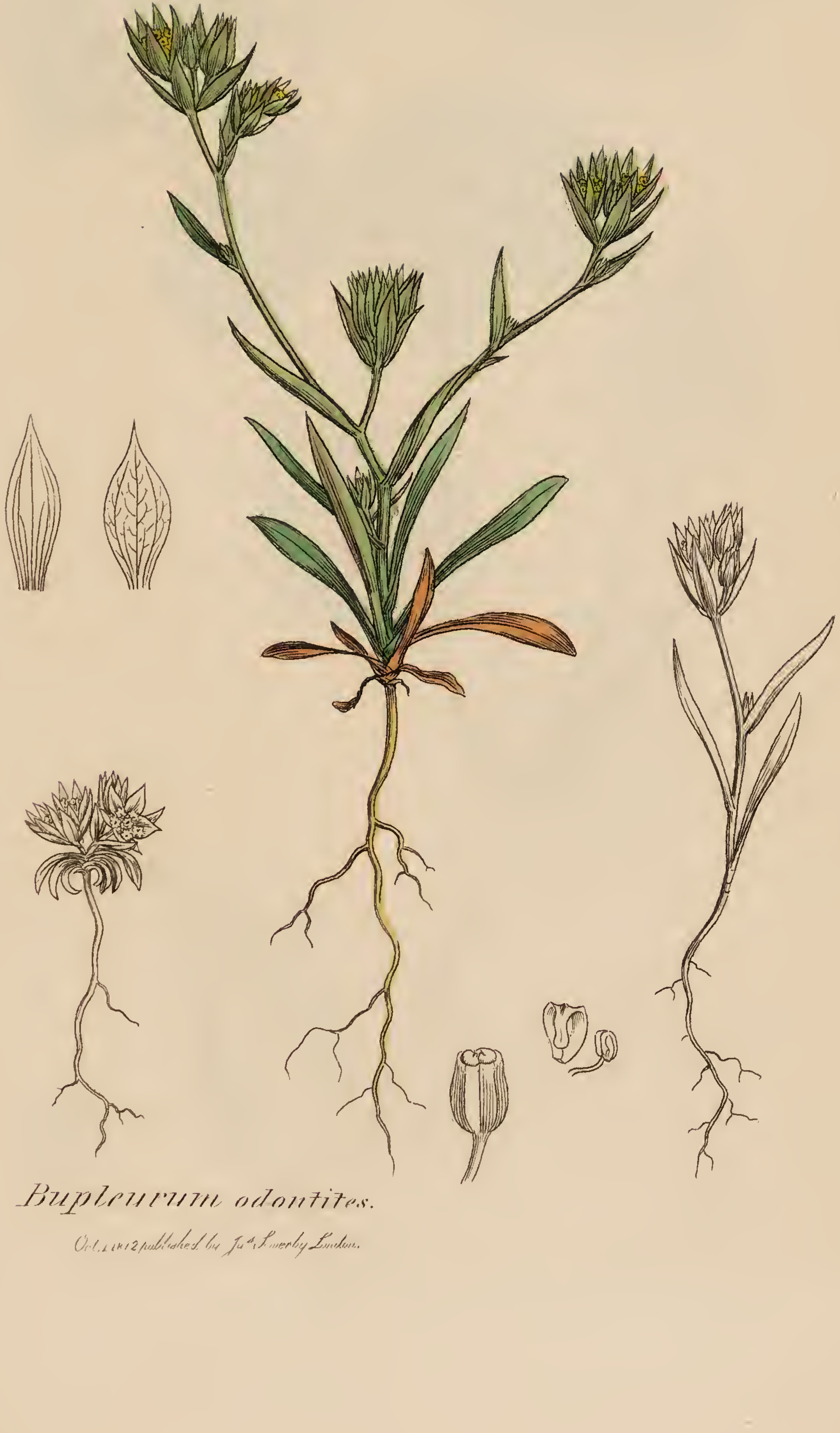


Sium angustifolium.

Js Sowerby delt Decr 1 1793

2468.

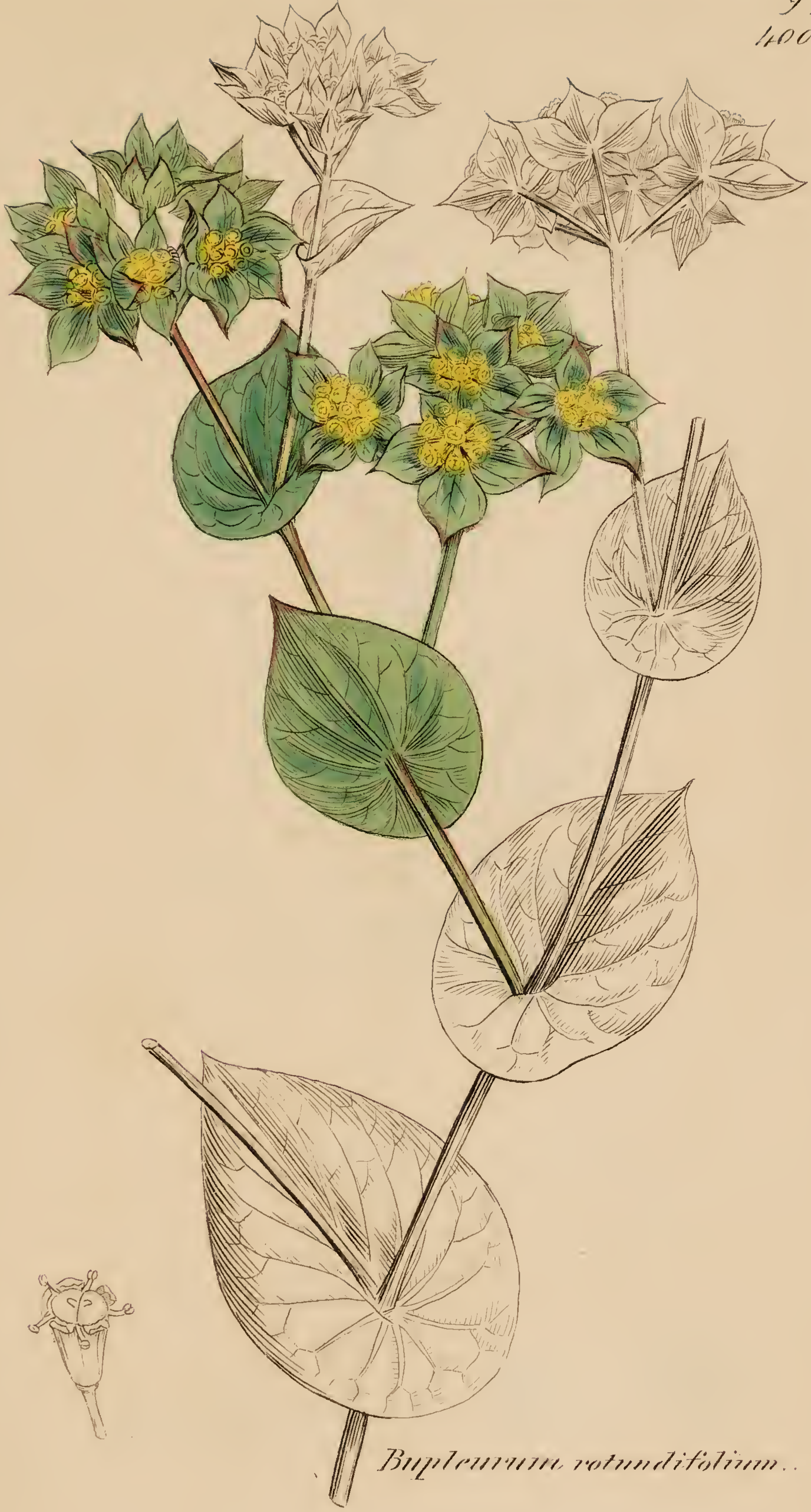
3.9.9.



Bupleurum odontites.

Oct. 1. 1812 published by Jas. Sowerby London.

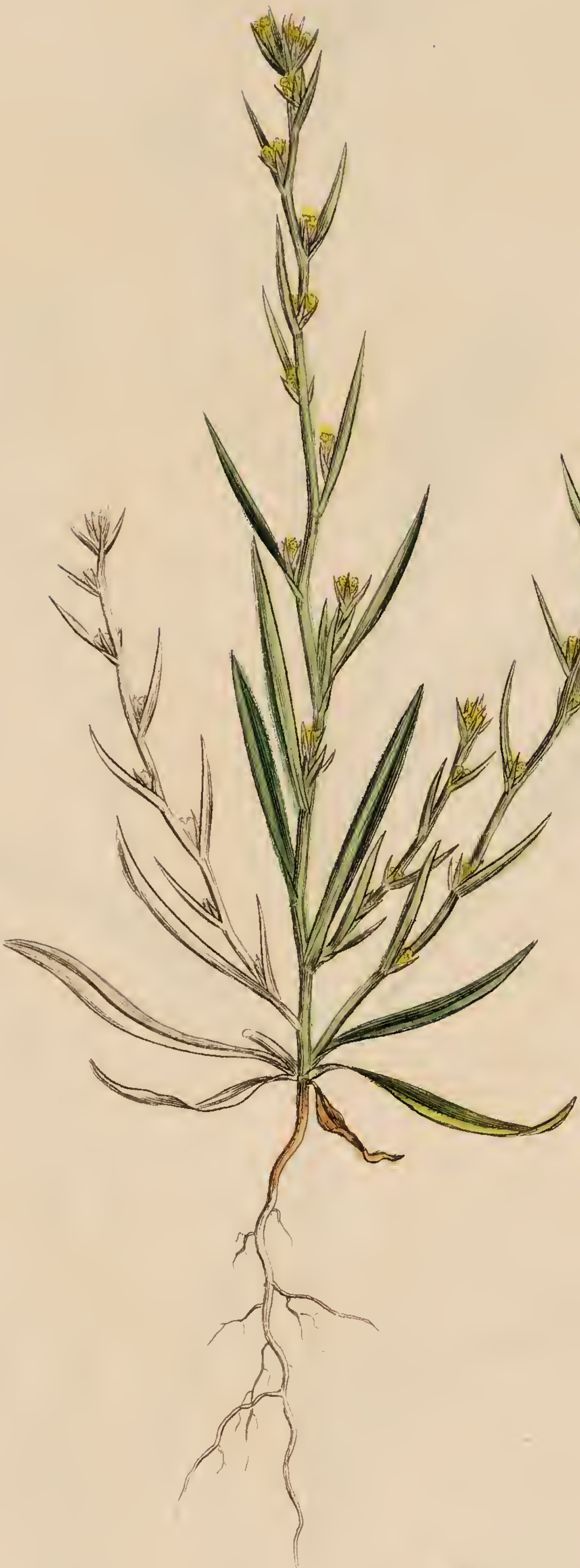
99.
400.

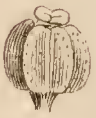


Bupleurum rotundifolium.

478.

401.



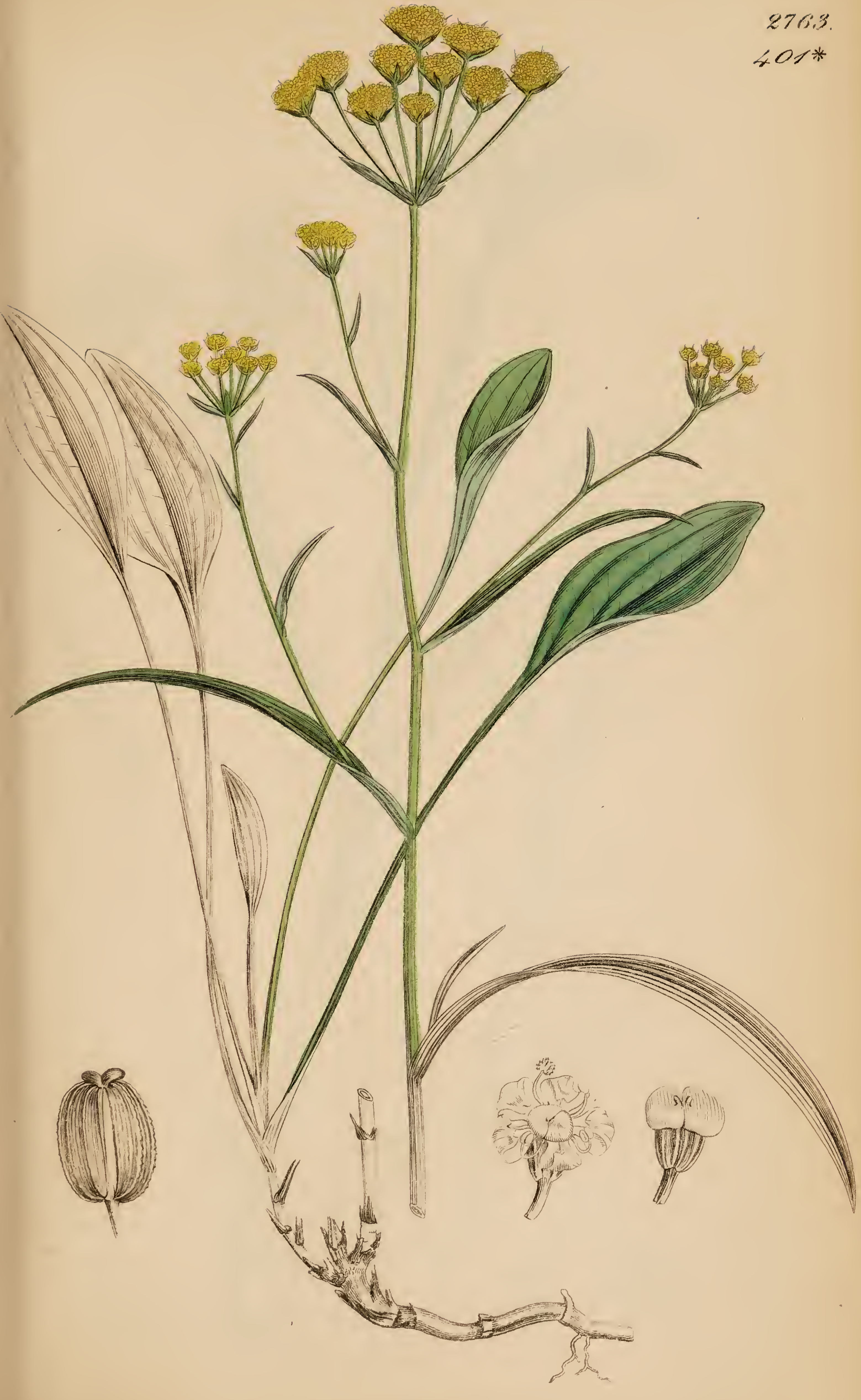


Bupleurum Tenuiſsimum.

July 1 [illegible] Publish'd by J. Sowerby London

2763.

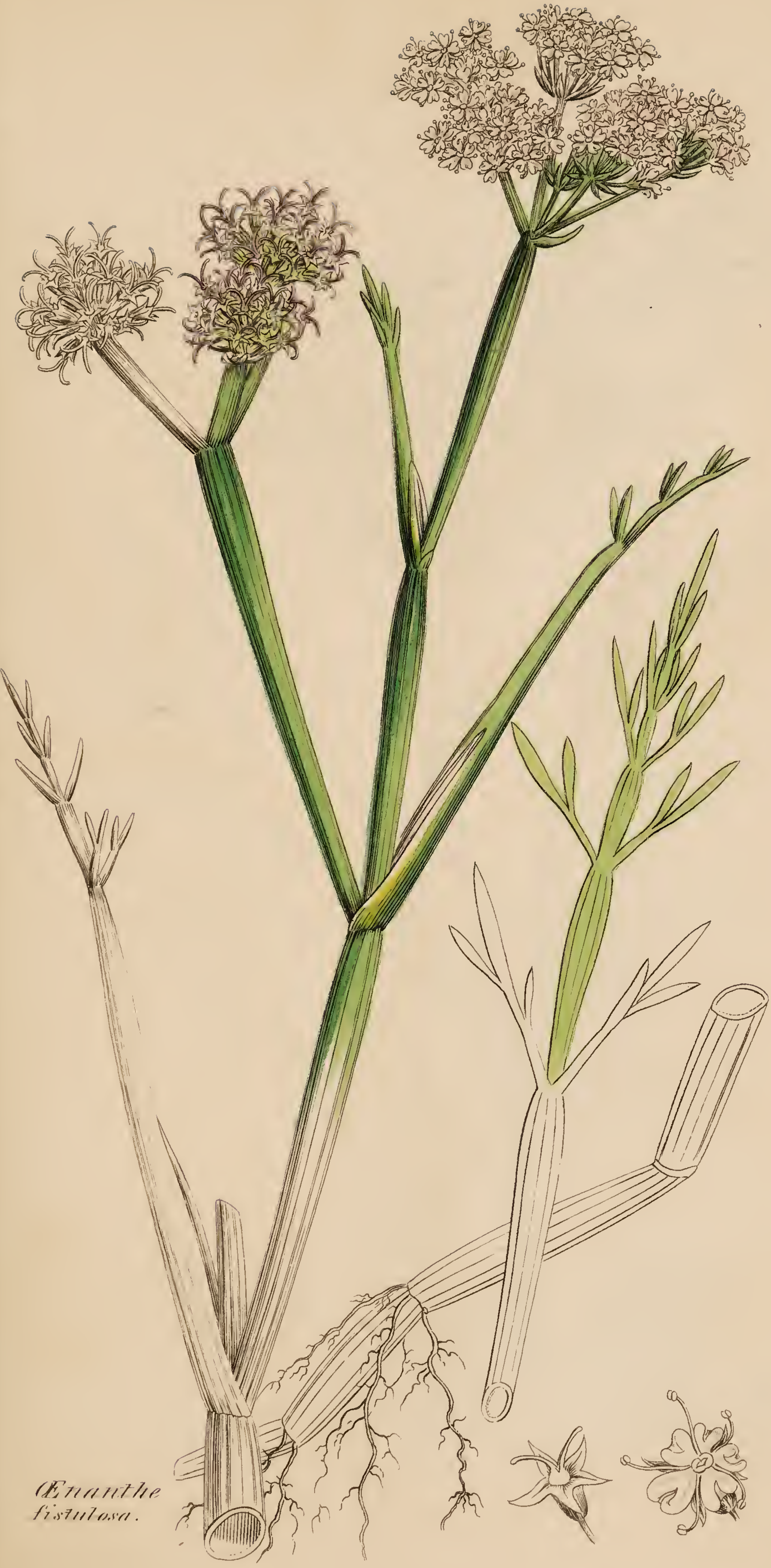
401*



Feby. 1st 1833.

363

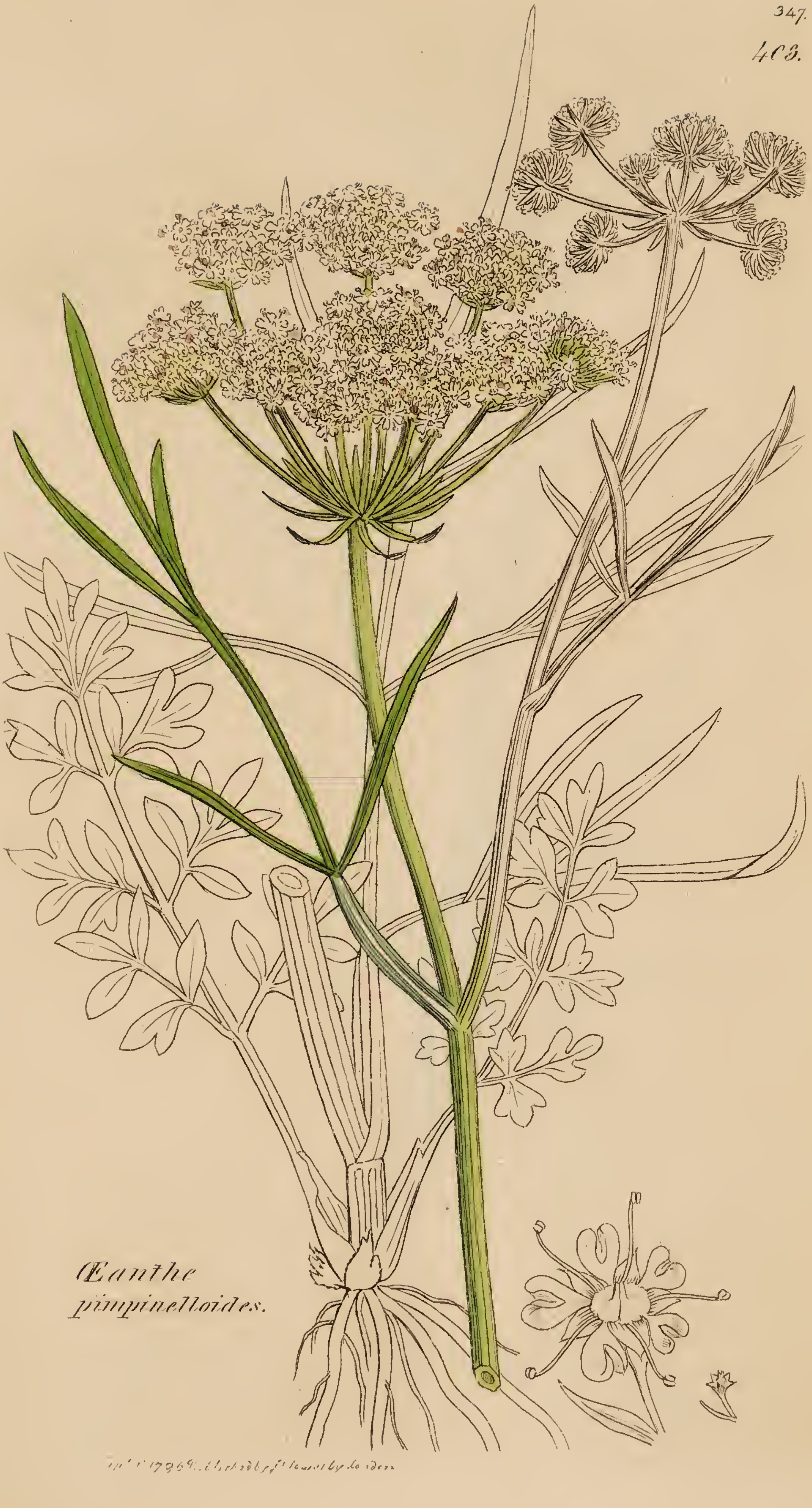
402.



Œnanthe fistulosa.

347.

403.

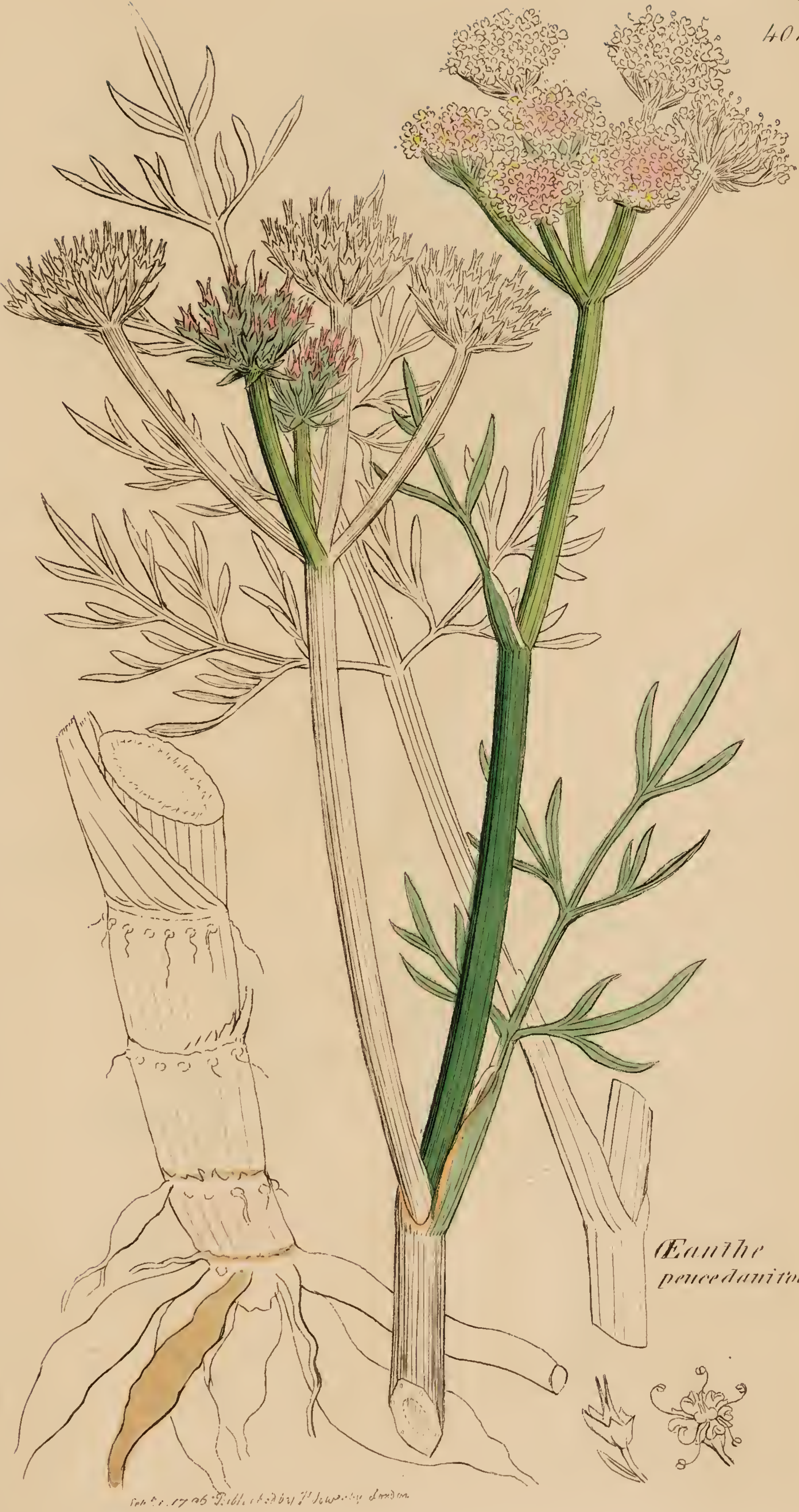


Œanthe pimpinelloides.

[illegible] 1795 [illegible] by [illegible] London

348

404

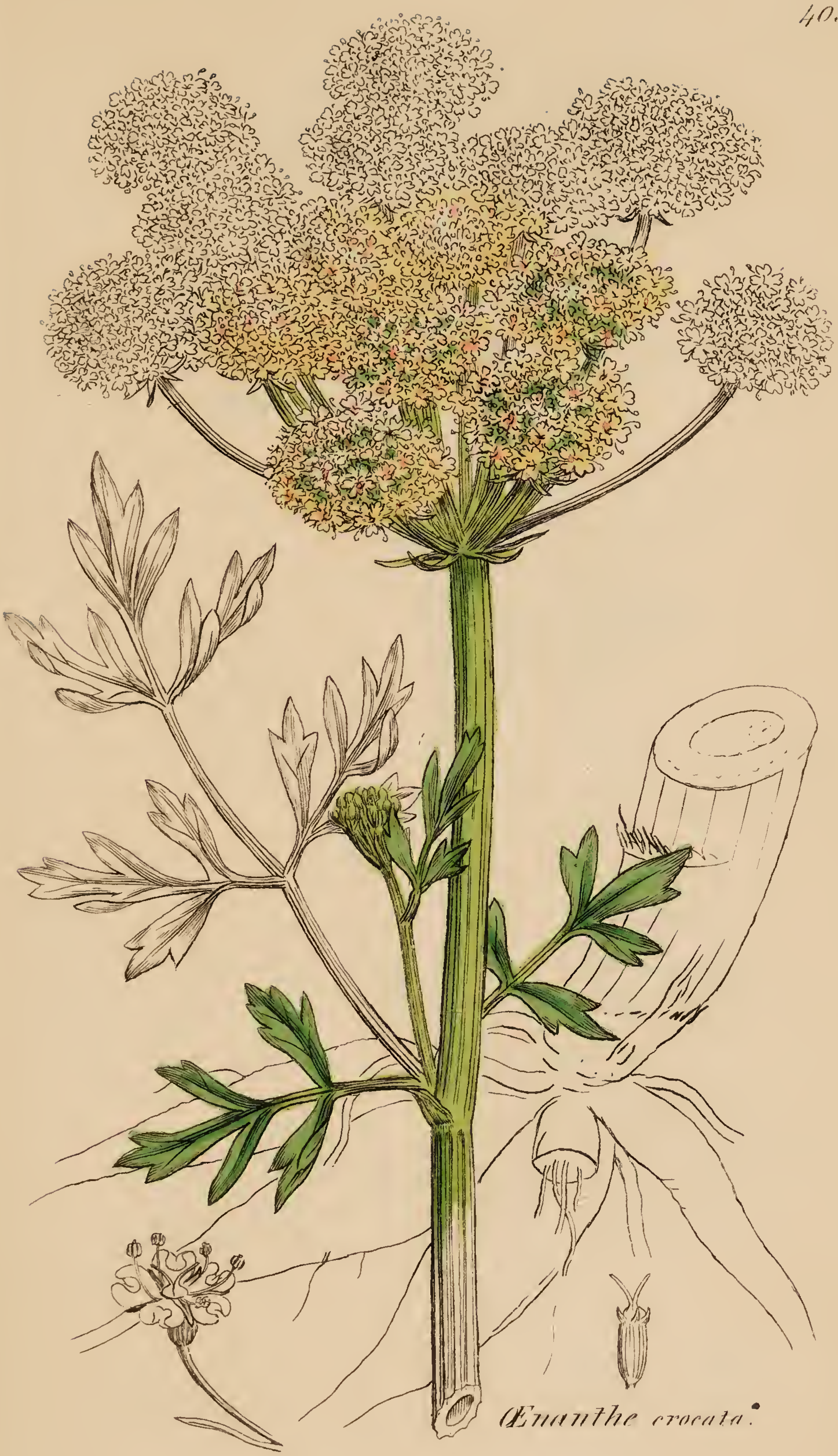


Œnanthe
peucedanifolia

Feb.y 1. 1796 Publish'd by Jas Sowerby London

2313

405.

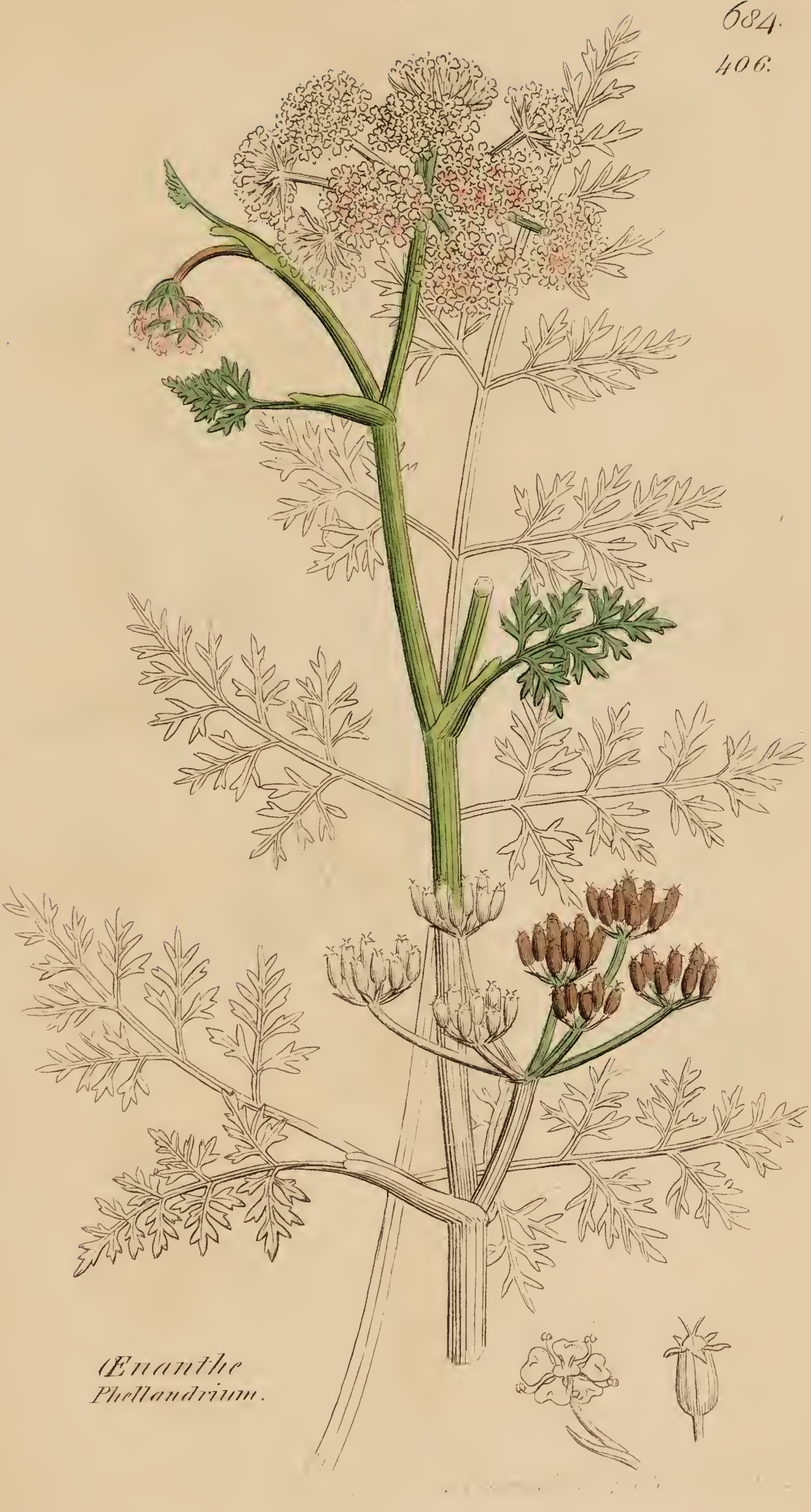


Œnanthe crocata.

Aug 1 1800 published by Jas Sowerby London.

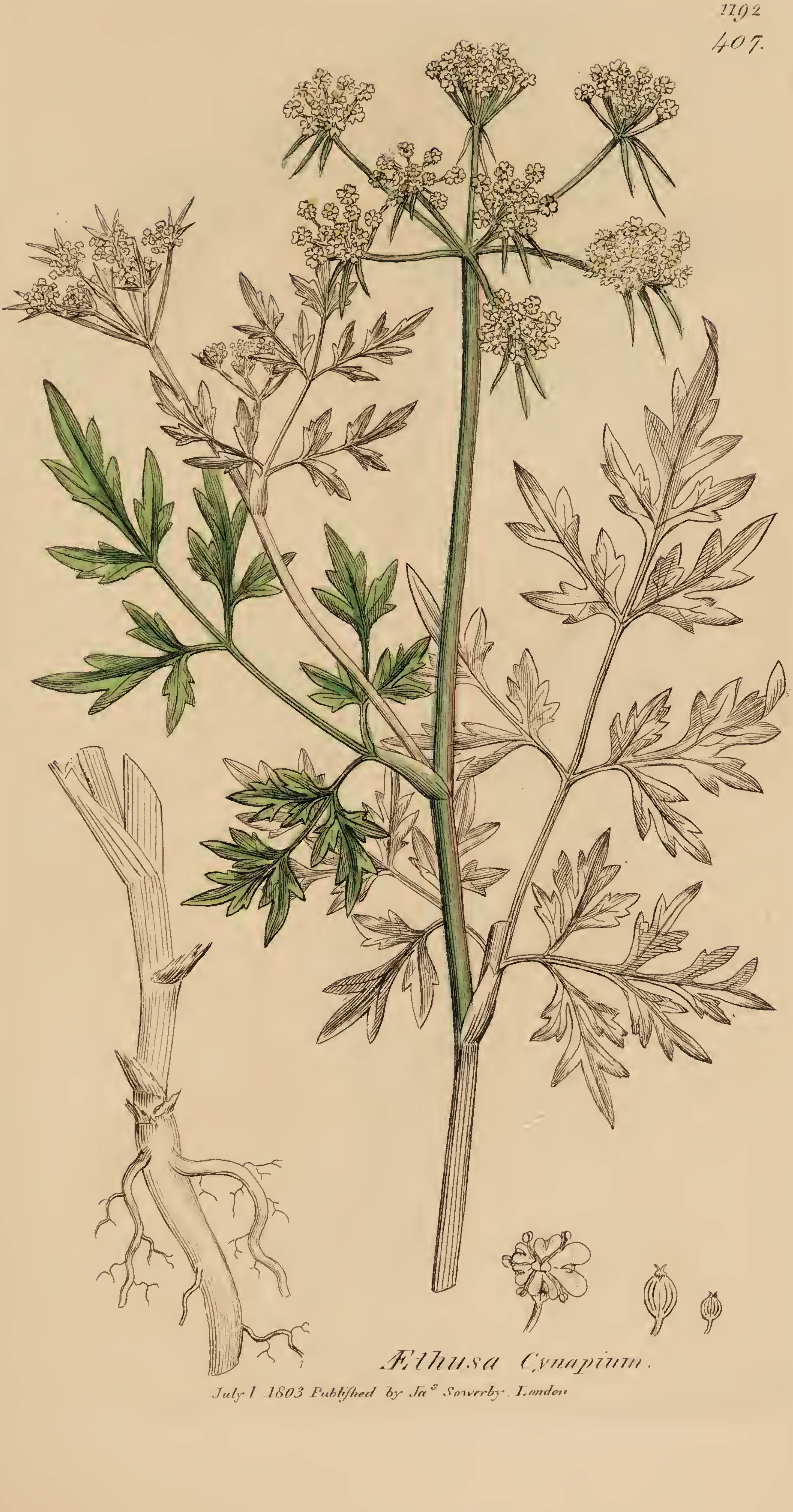
684.

406.



Œnanthe
Phellandrium.

1192
407.

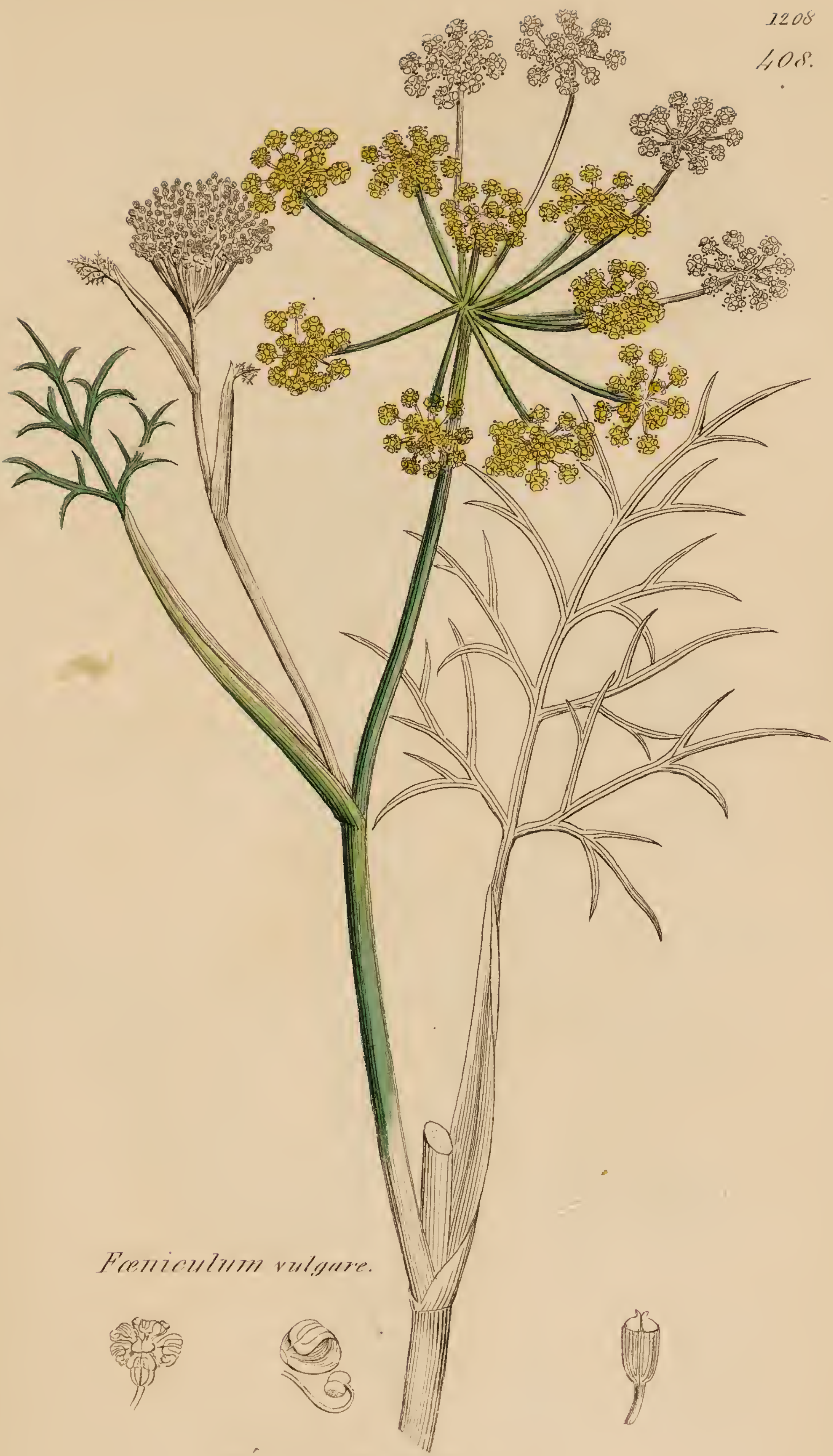


Æthusa Cynapium.

July 1 1803 Published by Ja^{s} Sowerby, London

1208

408.

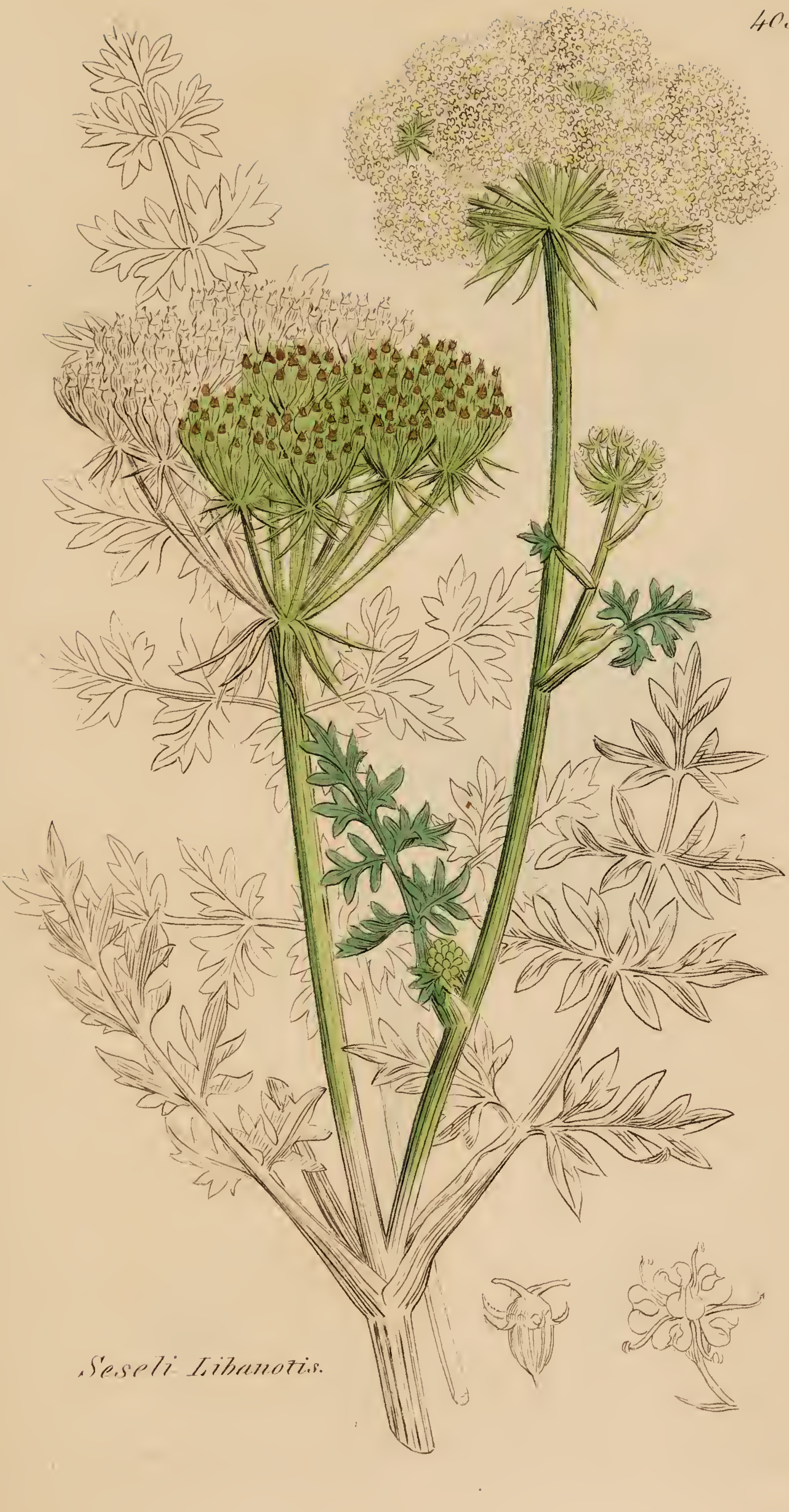


Fœniculum vulgare.

Sept. 1 1803 Publiſhed by Ja.s Sowerby London.

138.

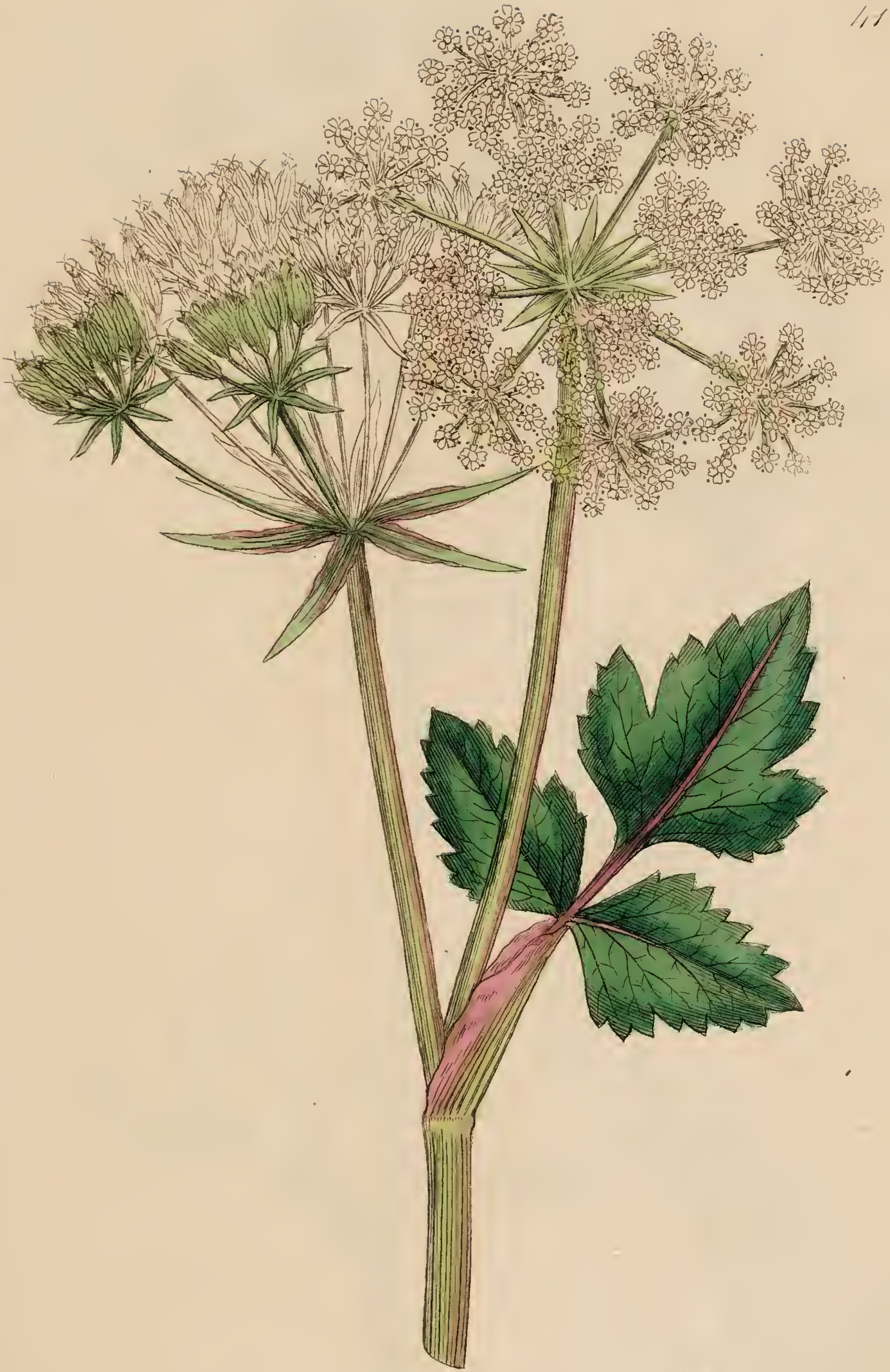
409.



Seseli Libanotis.

1207

410.

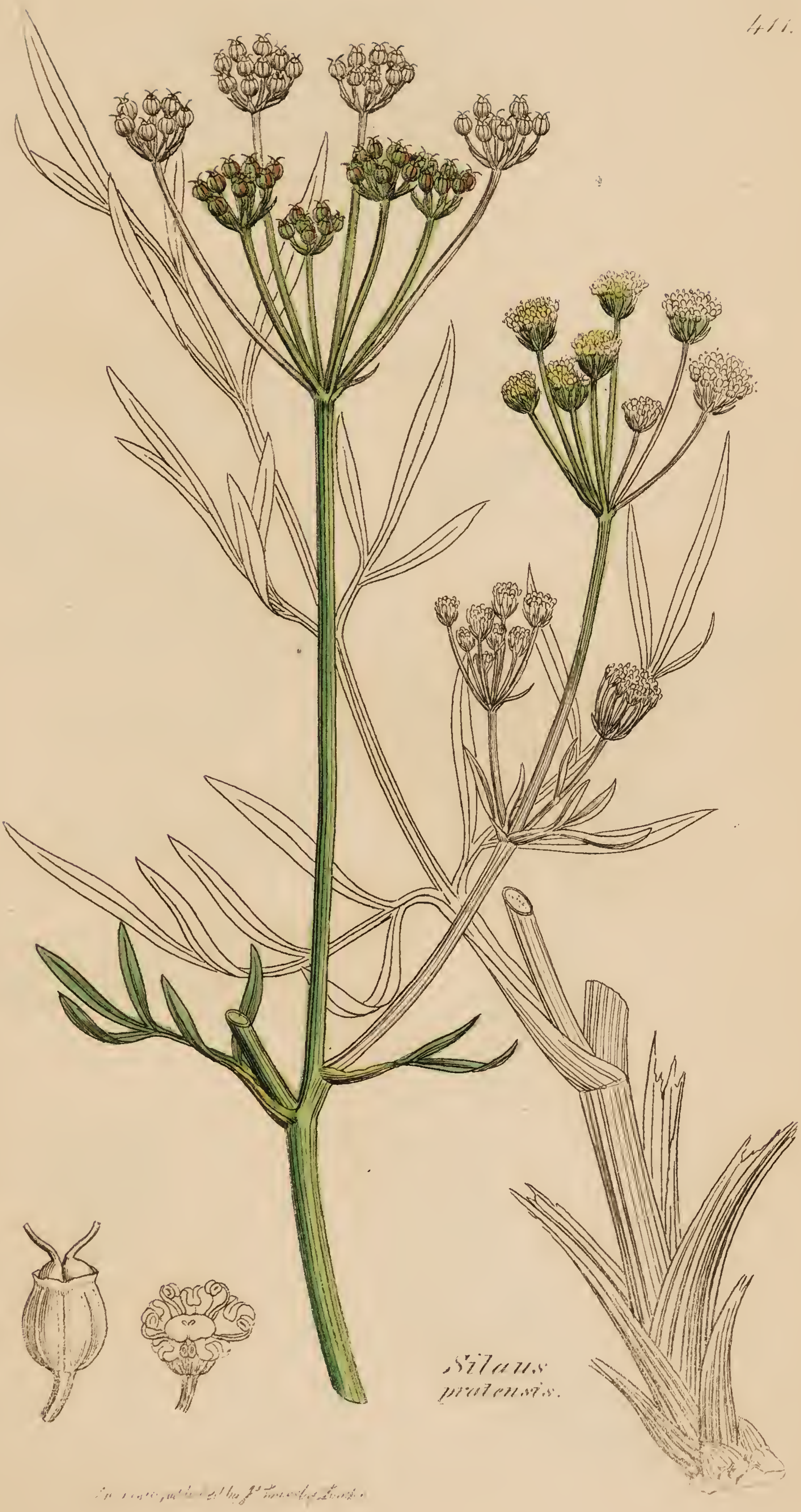


Ligusticum scoticum.

Sept.r 1. 1803. Publiſhed by Ja.s Sowerby London

2142

411.

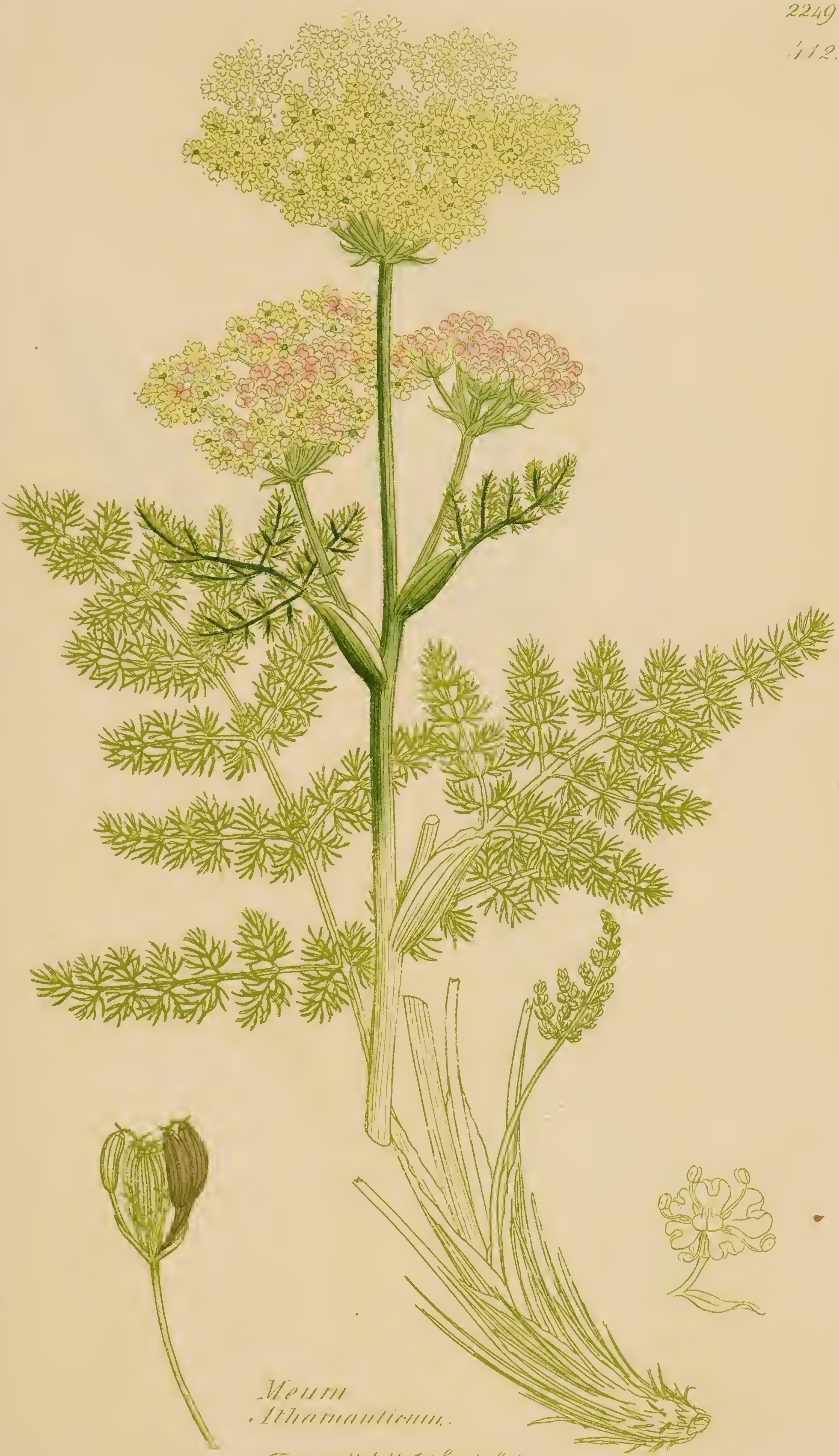


Silaus
pratensis.

[illegible]

2249

412.

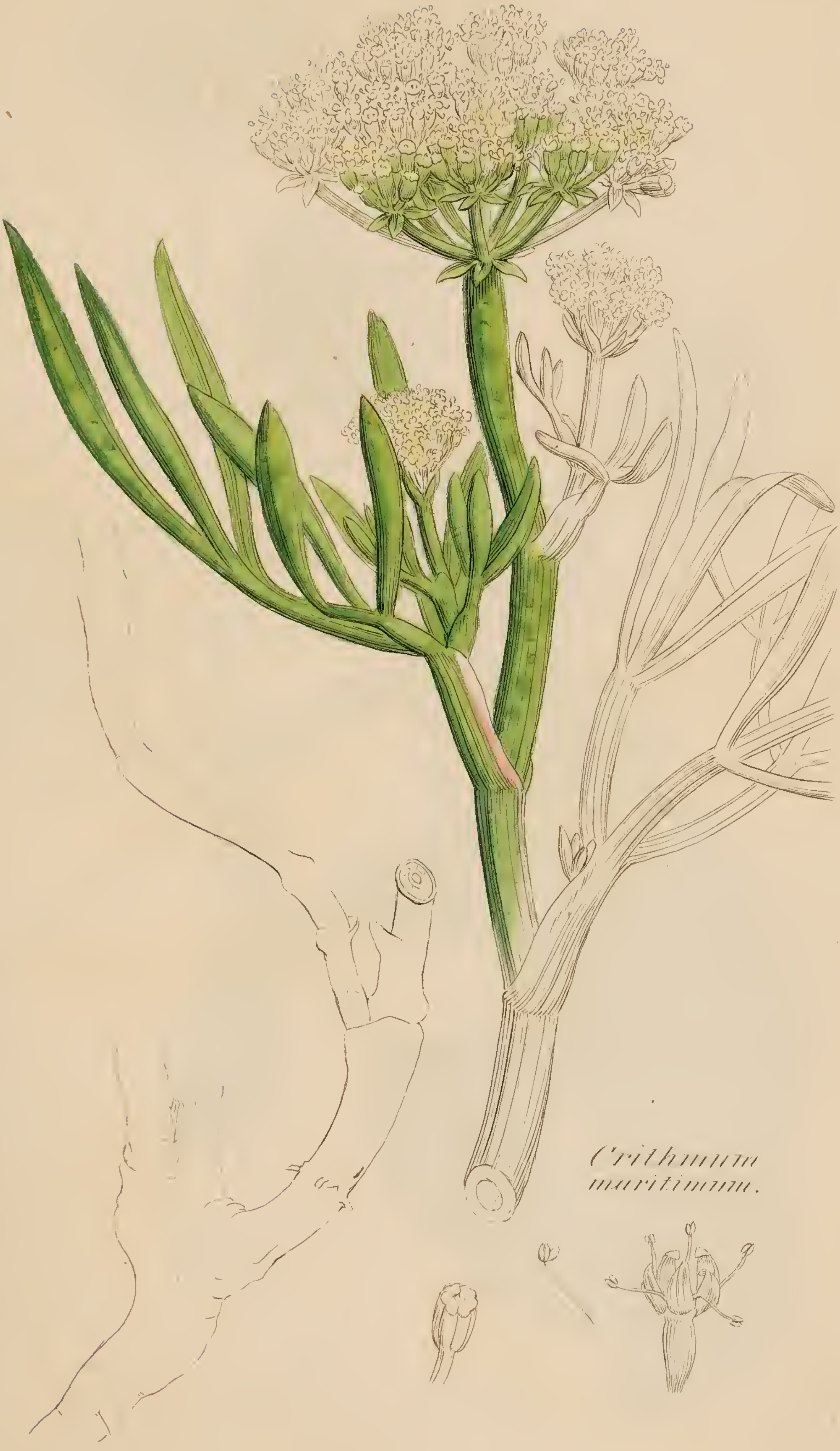


Meum Athamanticum.

Feb 1 1811 published by Jas. Sowerby London.

619

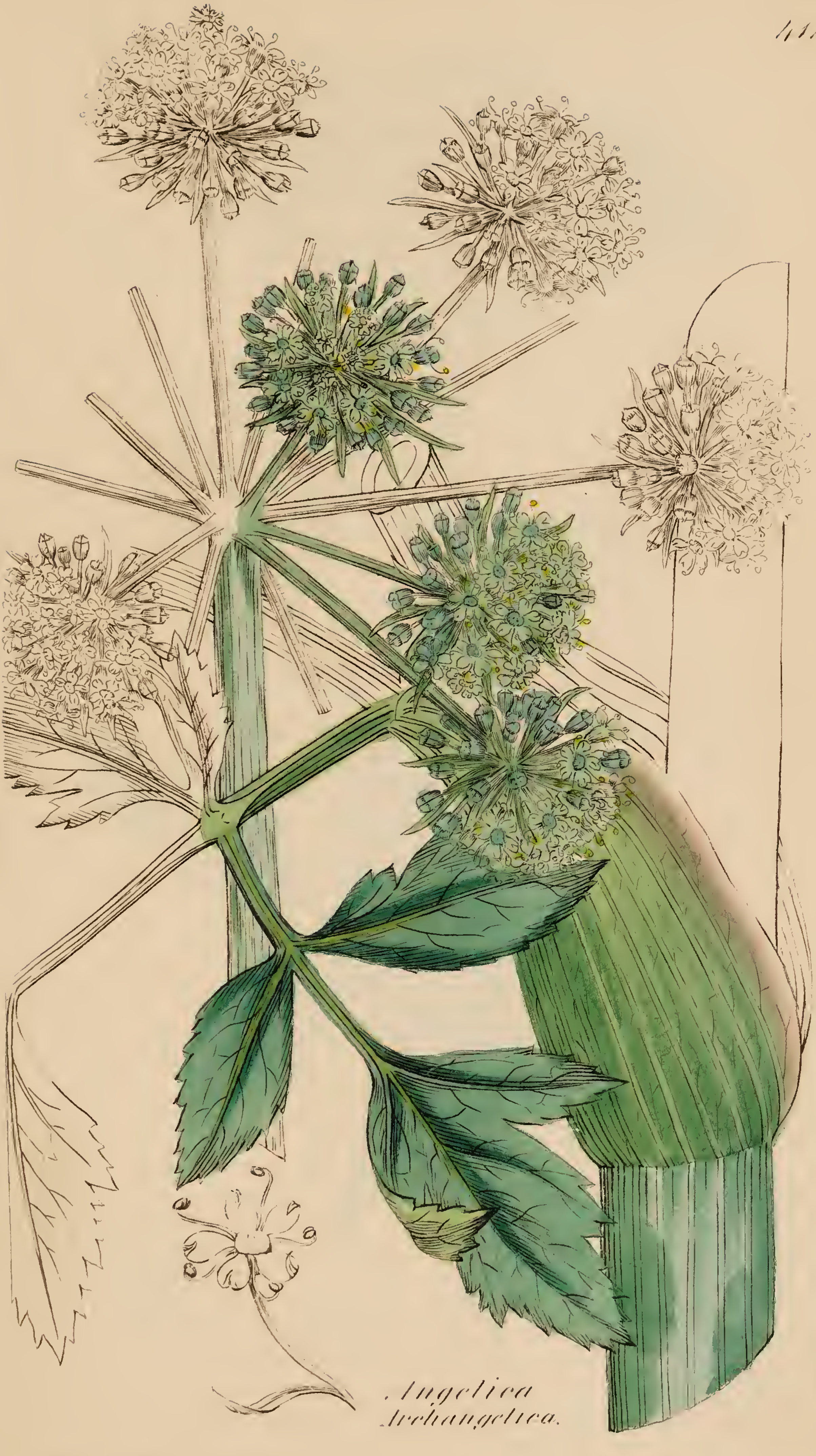
413.



Crithmum maritimum.

2561.

414.

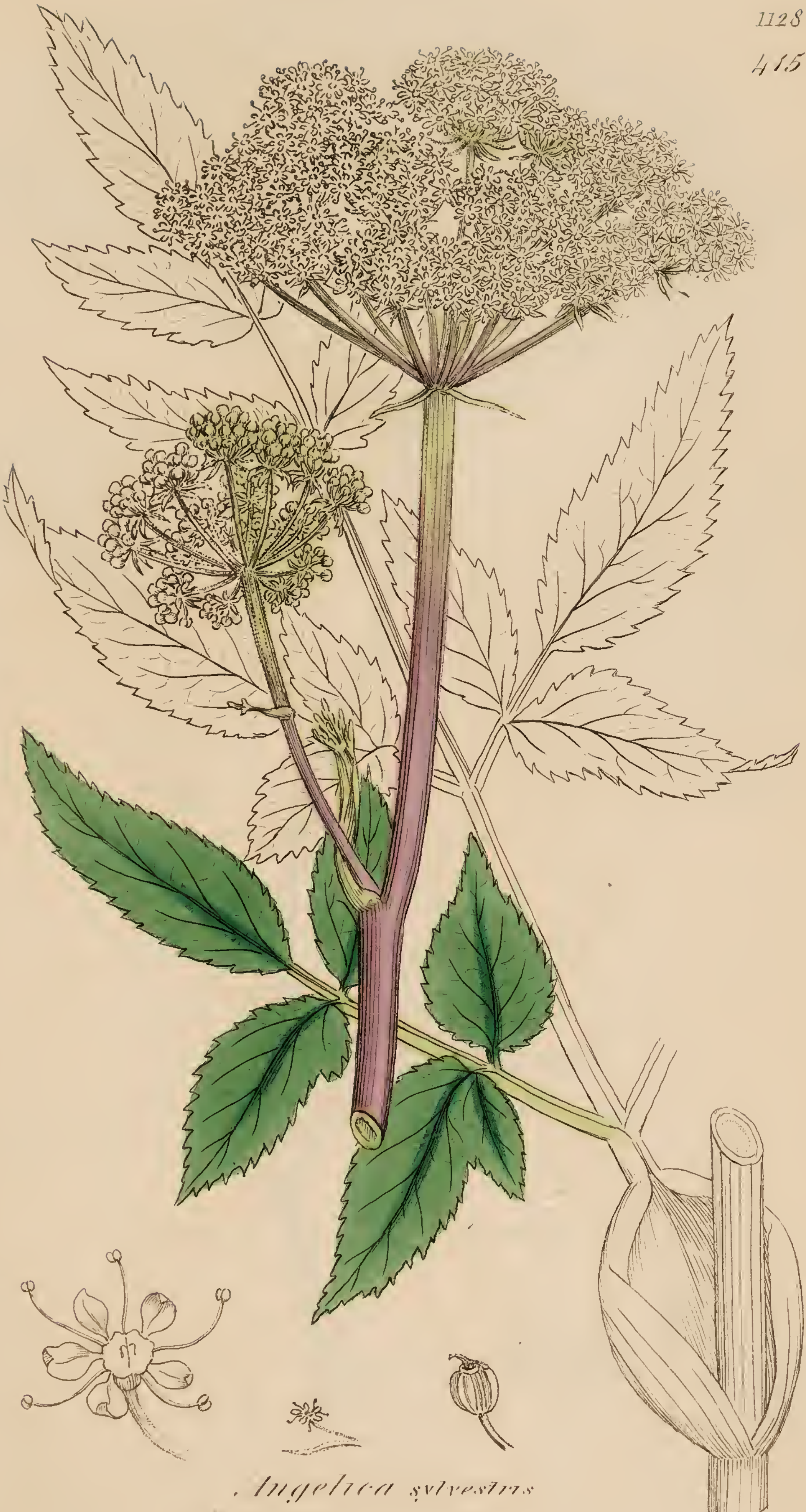


Angelica Archangelica.

Copied & published by Jas. Sowerby London.

1128

415.

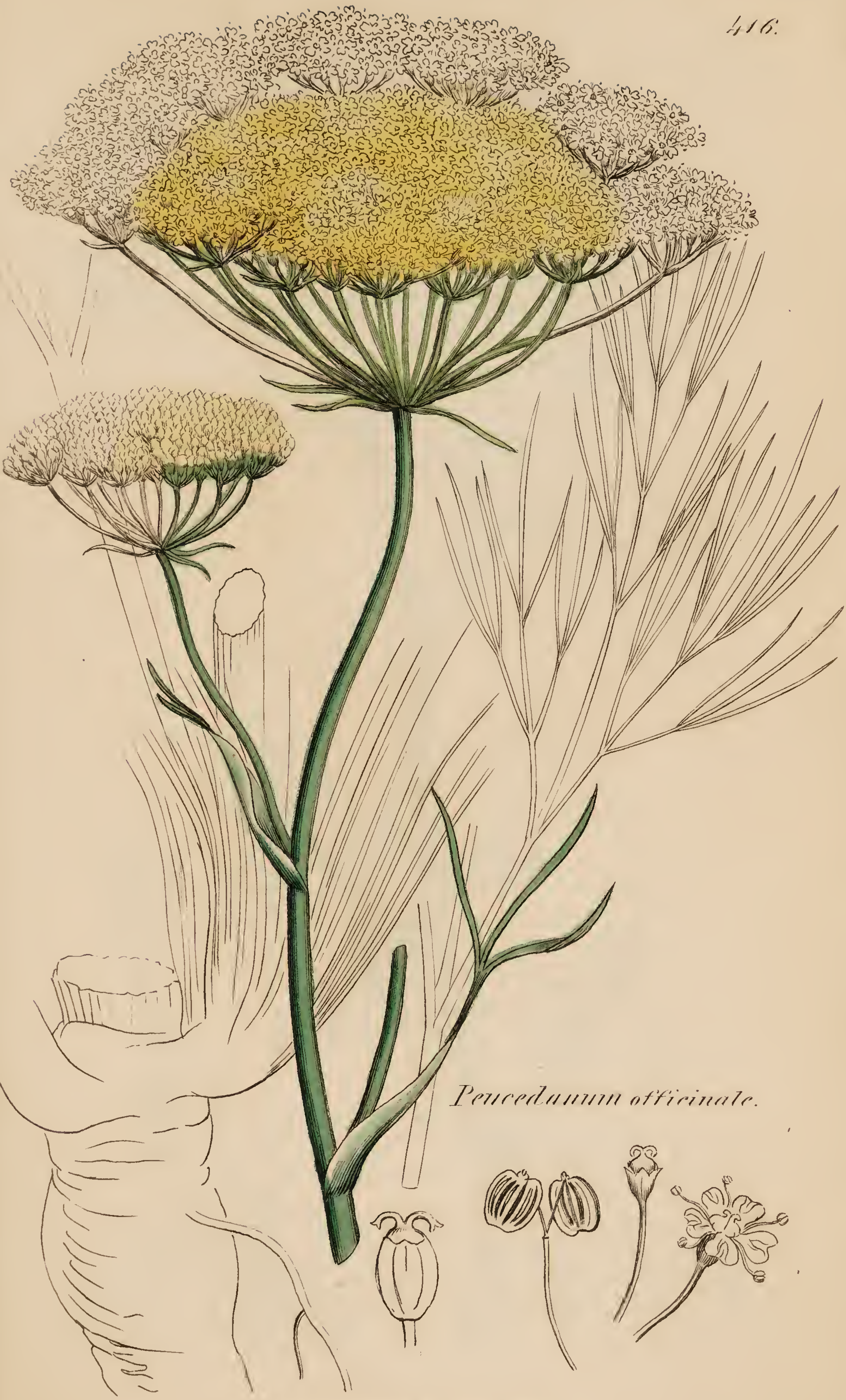


Angelica sylvestris

Feb. 1. 1803. Publiſhed by Jas. Sowerby, London

1767

416.

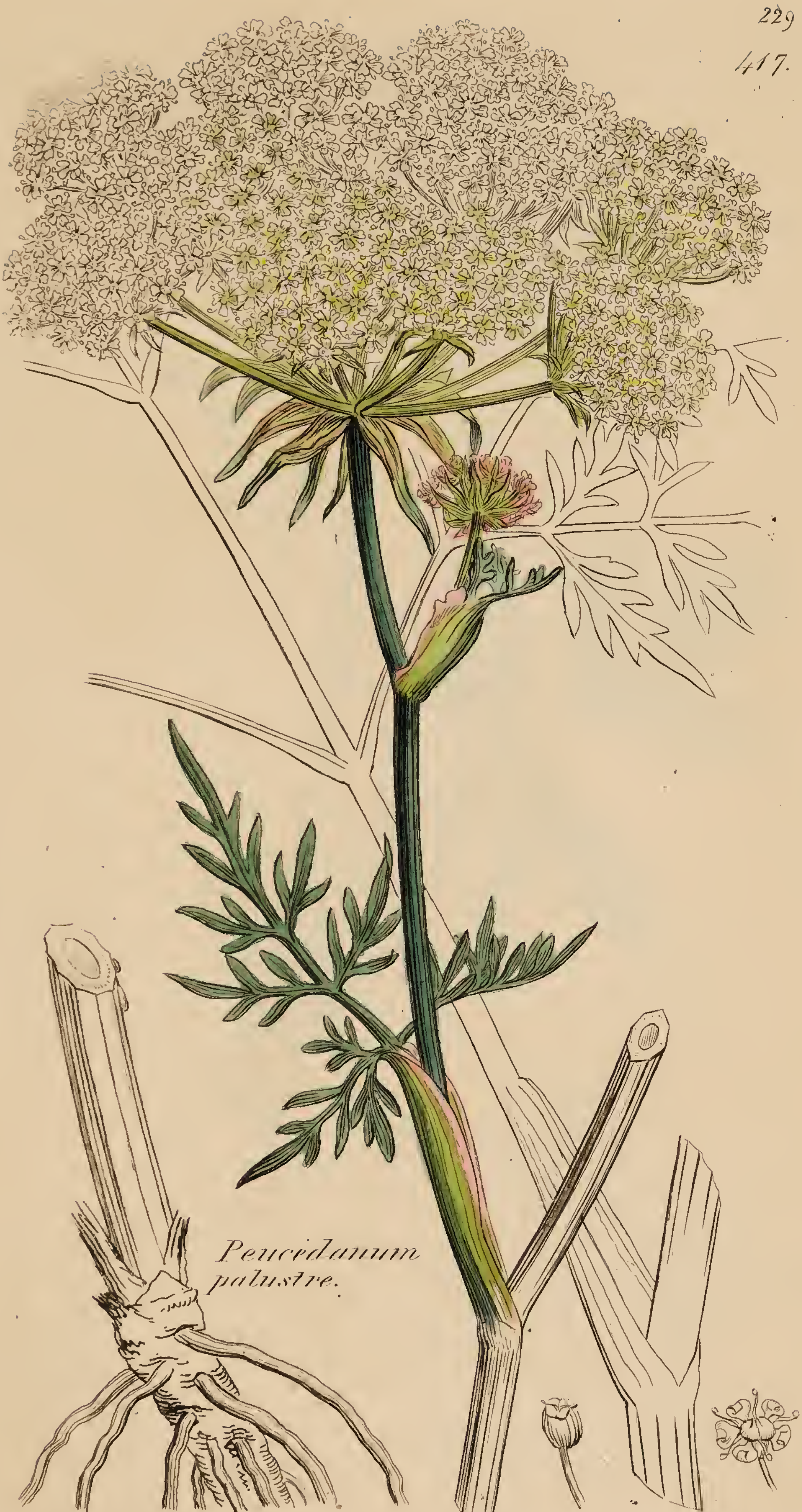


Peucedanum officinale.

July 1. 1807 Published by Jas. Sowerby London.

229

417.

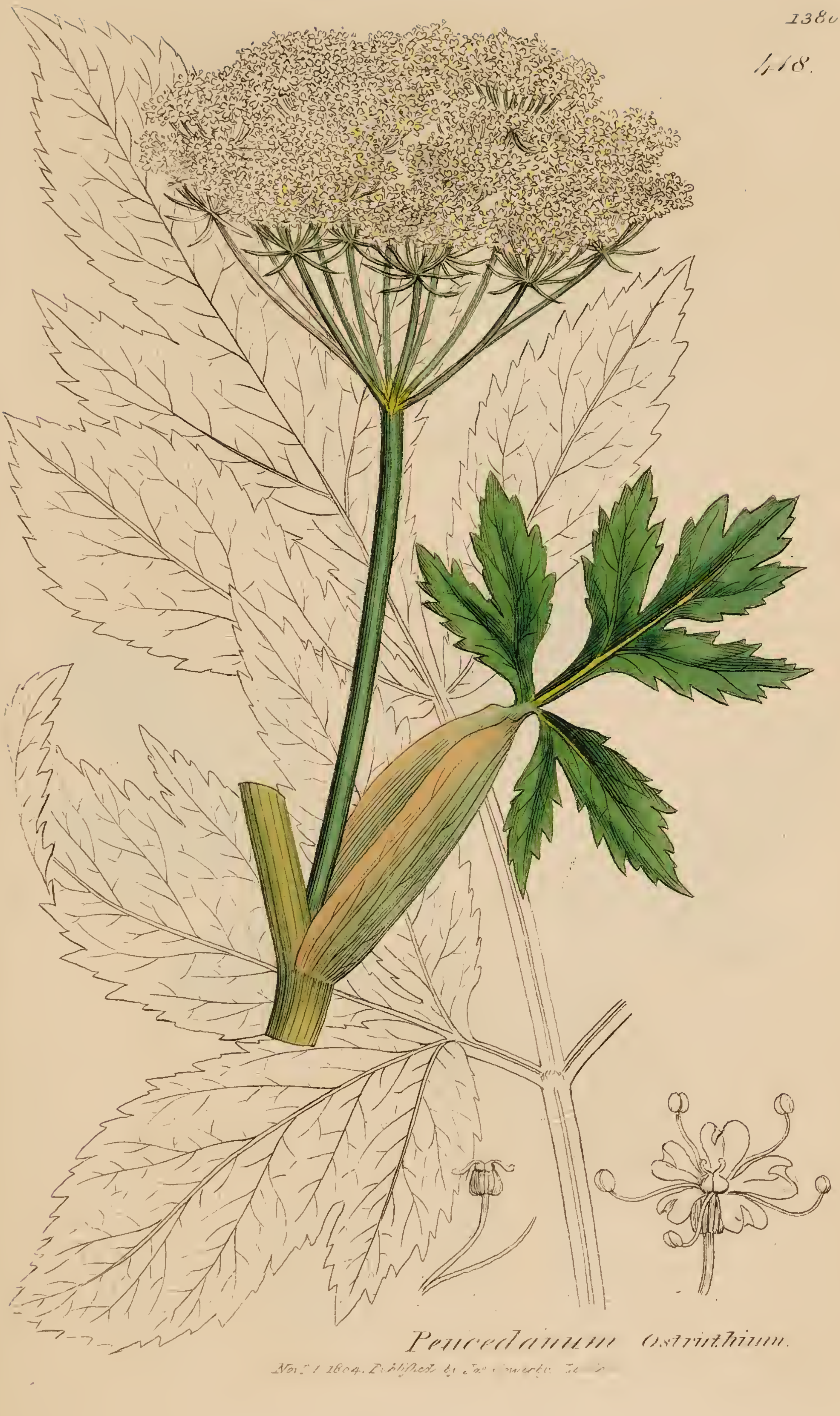


Peucedanum palustre.

F 1 1795 Publish'd by Jas Sowerby

1380

418.

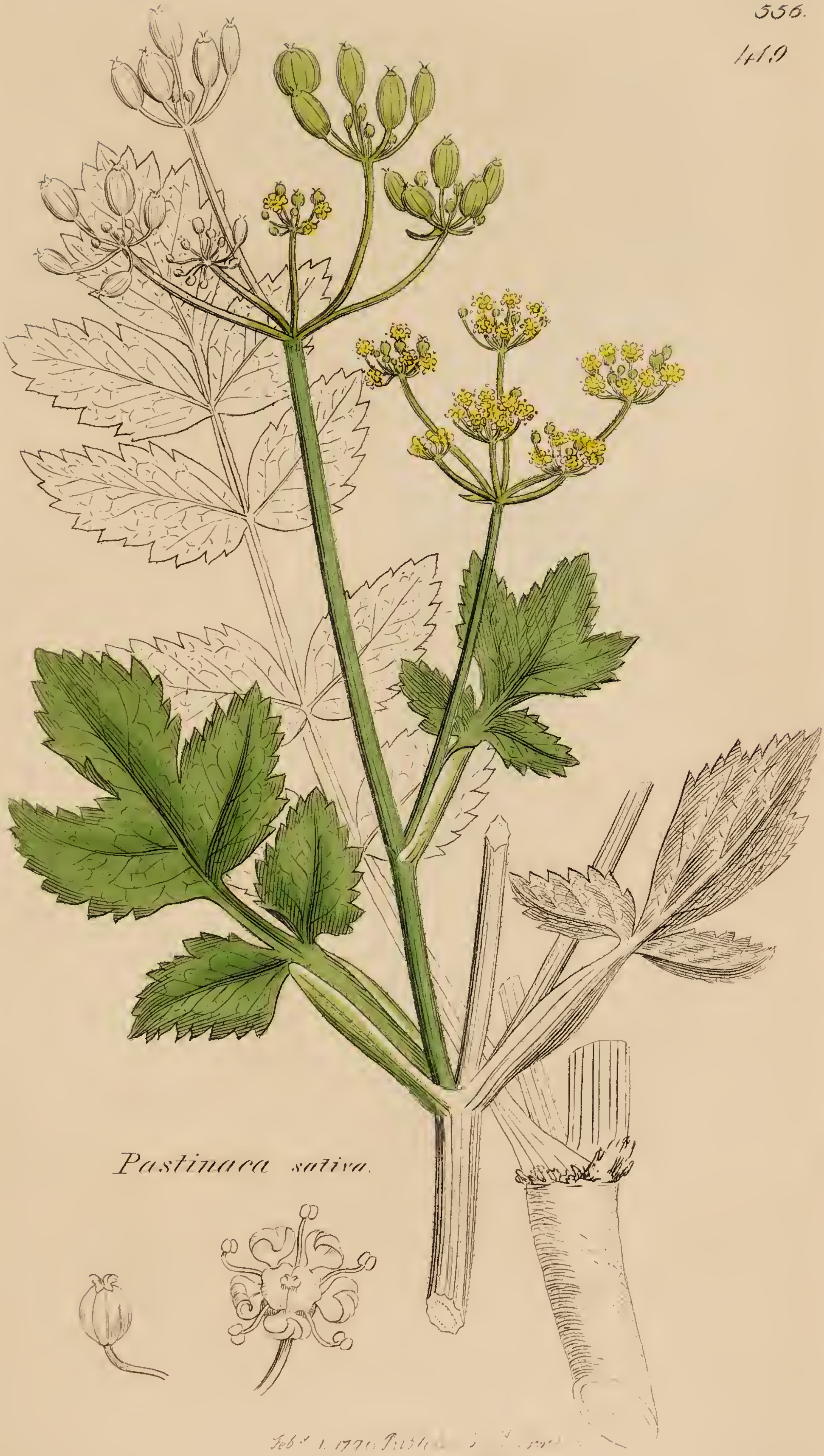


Peucedanum Ostruthium.

Nov.r 1 1804. Publiſhed by Ja.s Sowerby London

556.

419

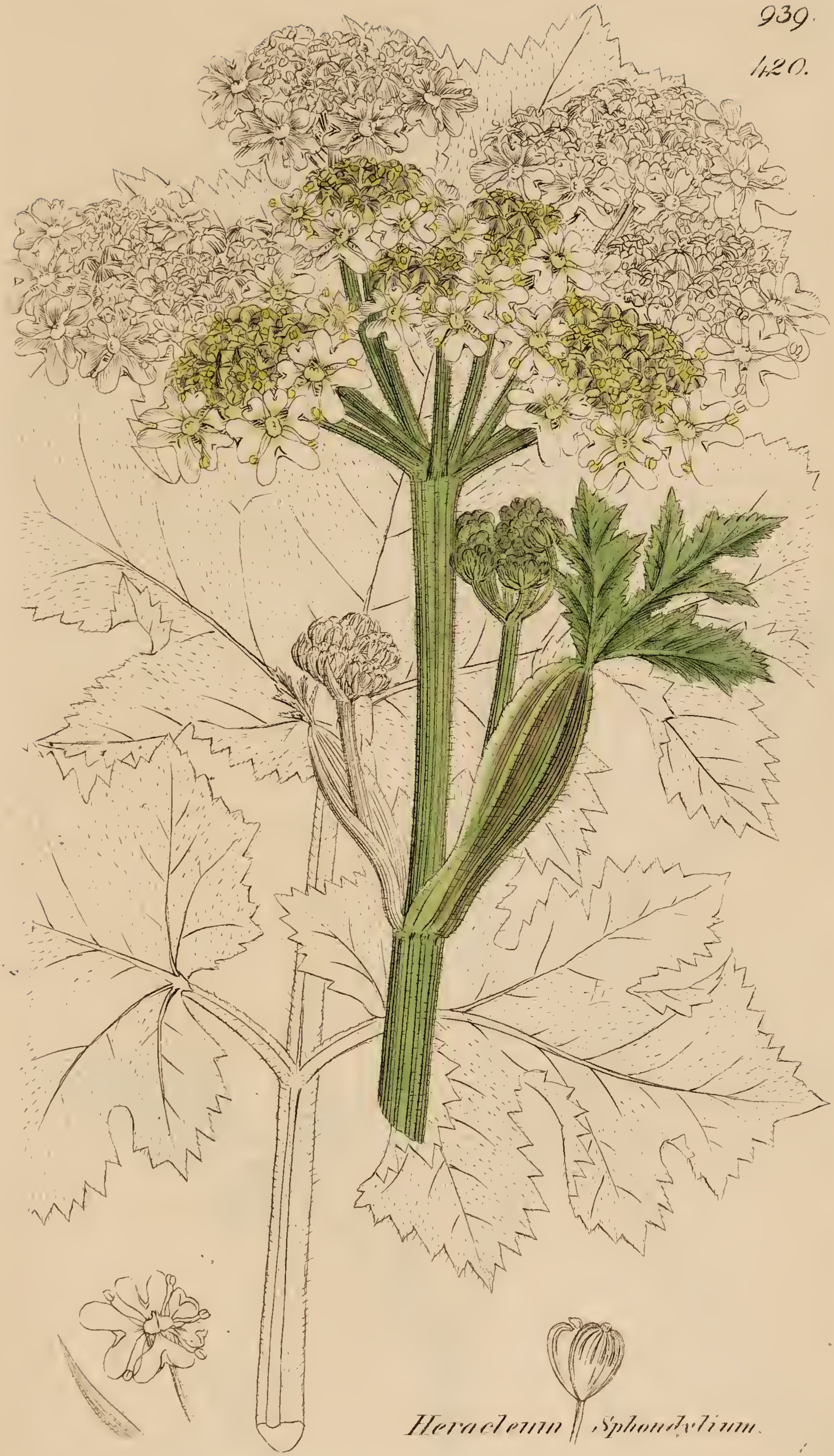


Pastinaca sativa.

Feb.y 1. 1799 Publish [illegible]

939.

420.

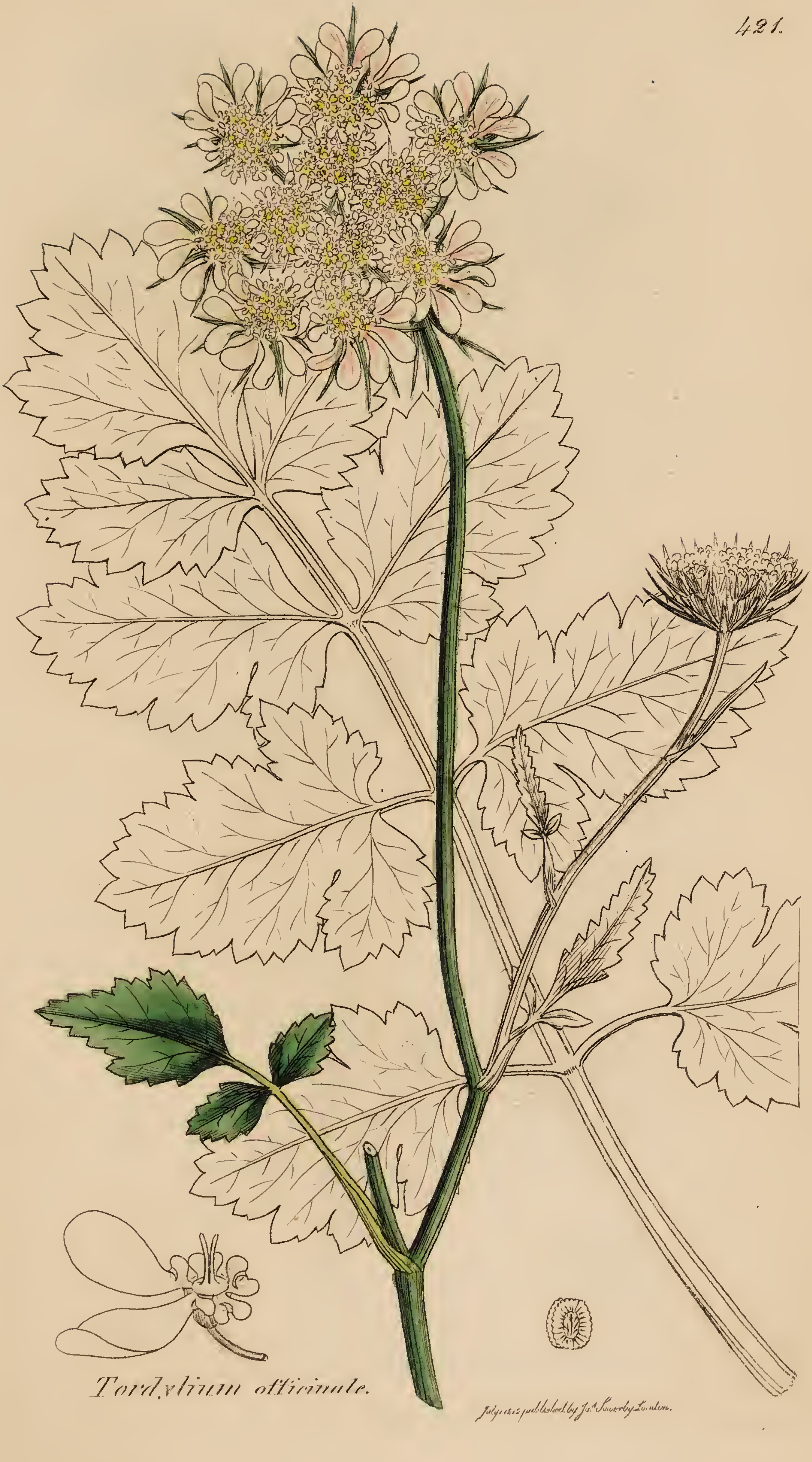


Heracleum Sphondylium.

[illegible]

2440.

421.

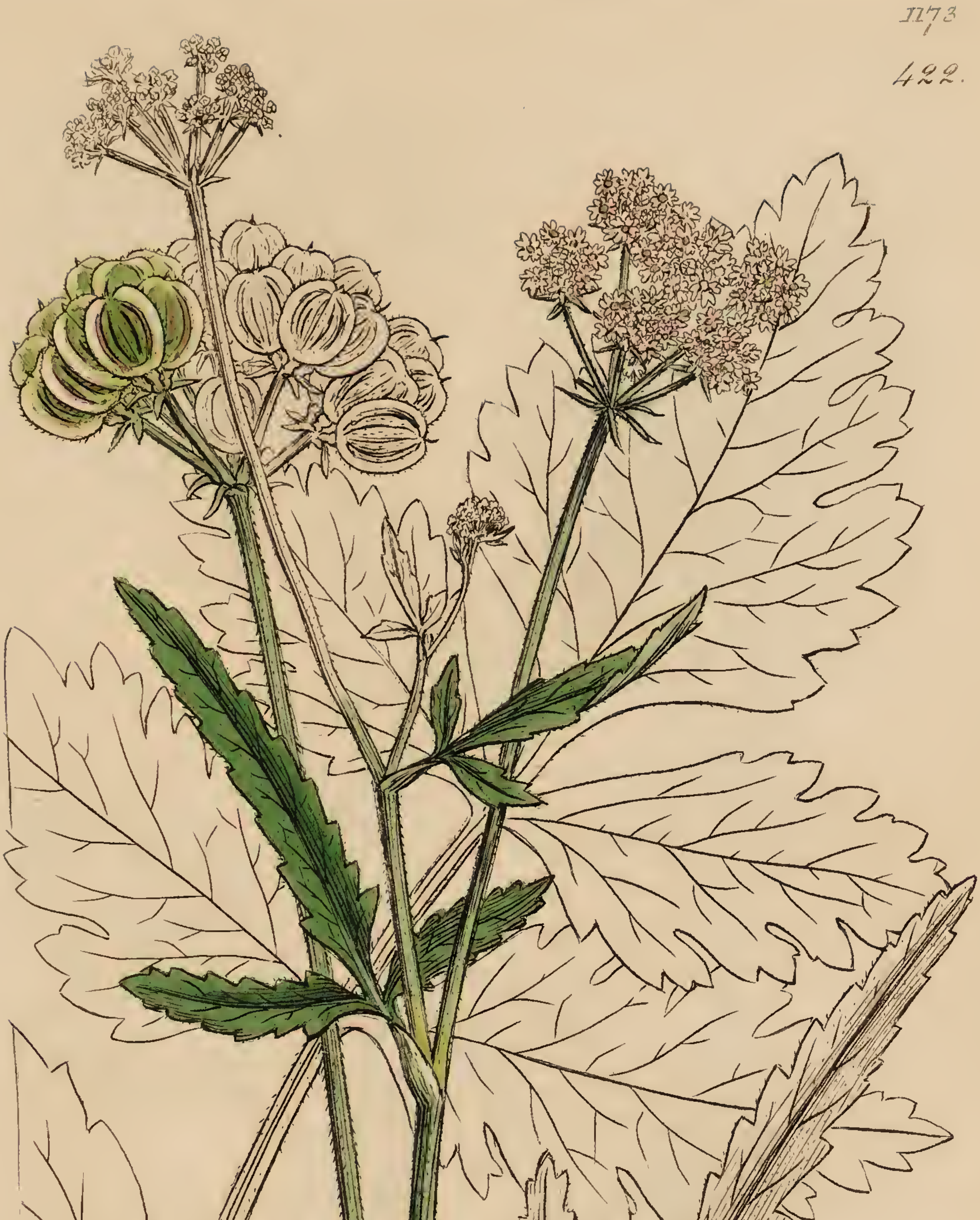


Tordylium officinale.

July 1 1812 published by Jas Sowerby London.

1173

422.

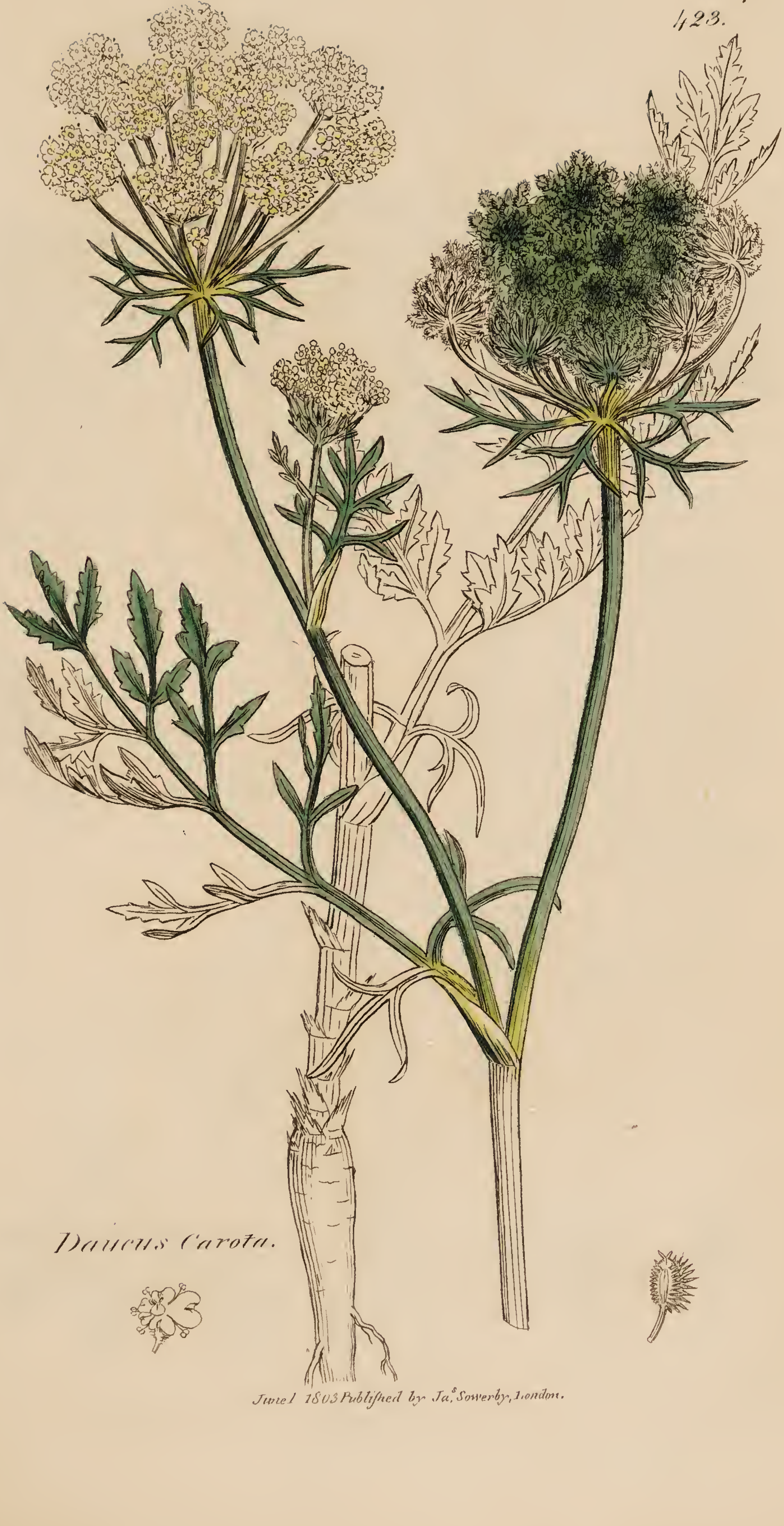


Tordylium maximum.

June 1. 1803. Publiſhed by Ja.^s Sowerby, London.

1174.

423.

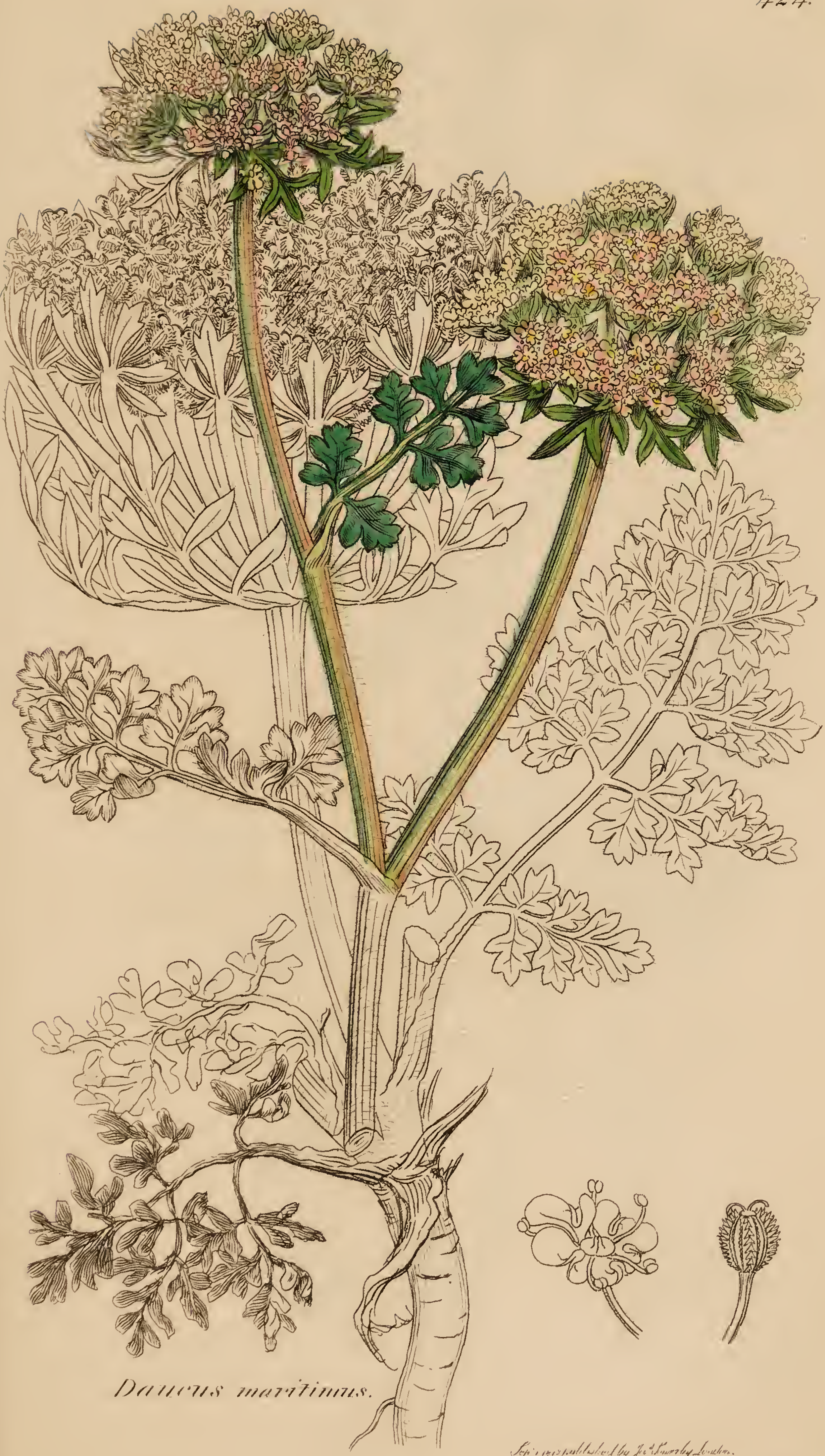


Daucus Carota.

June 1 1803 Published by Jas. Sowerby, London.

2560.

424.

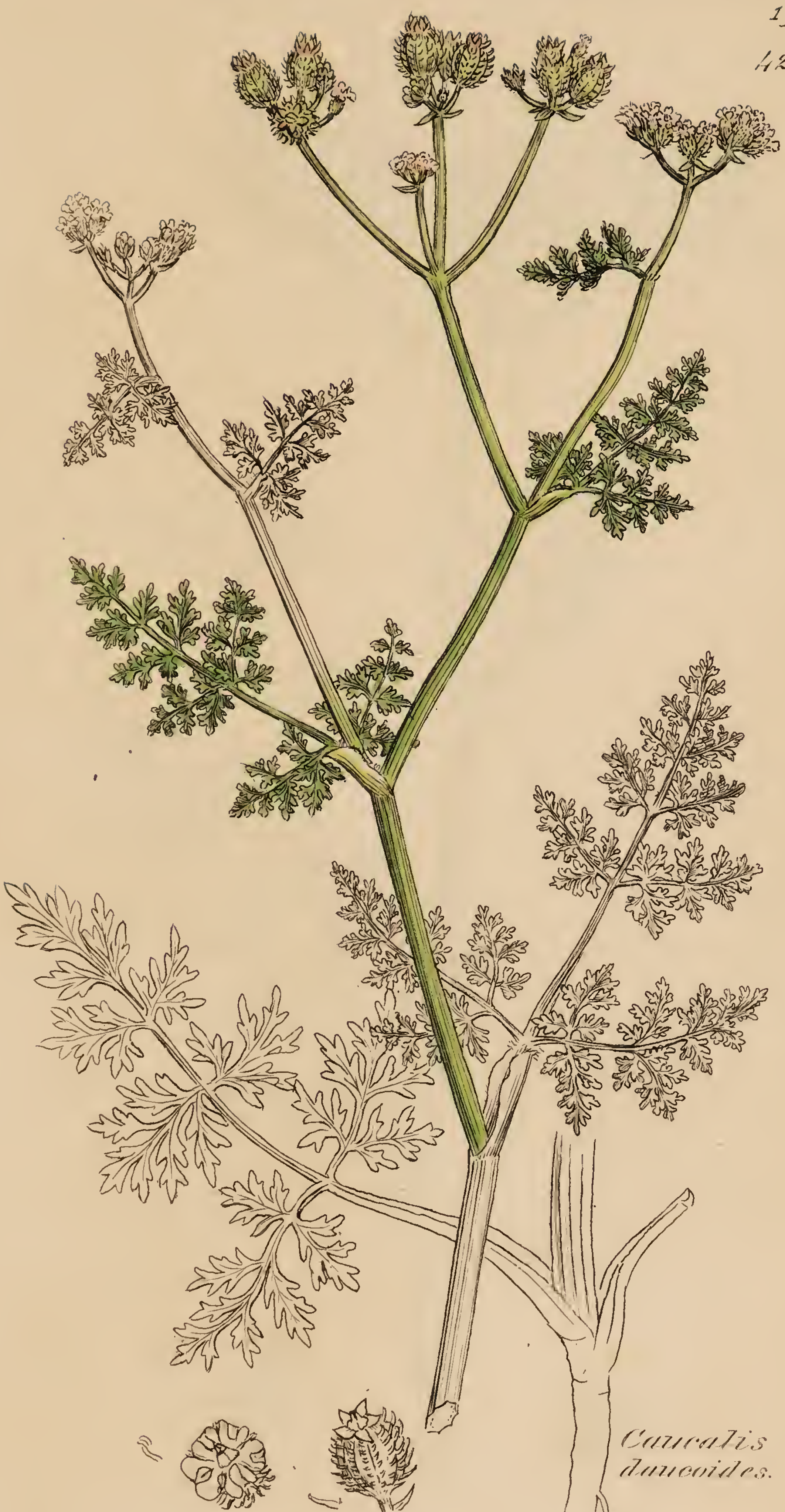


Daucus maritimus.

Sepr 1 1813 published by Jas Sowerby London.

197

425

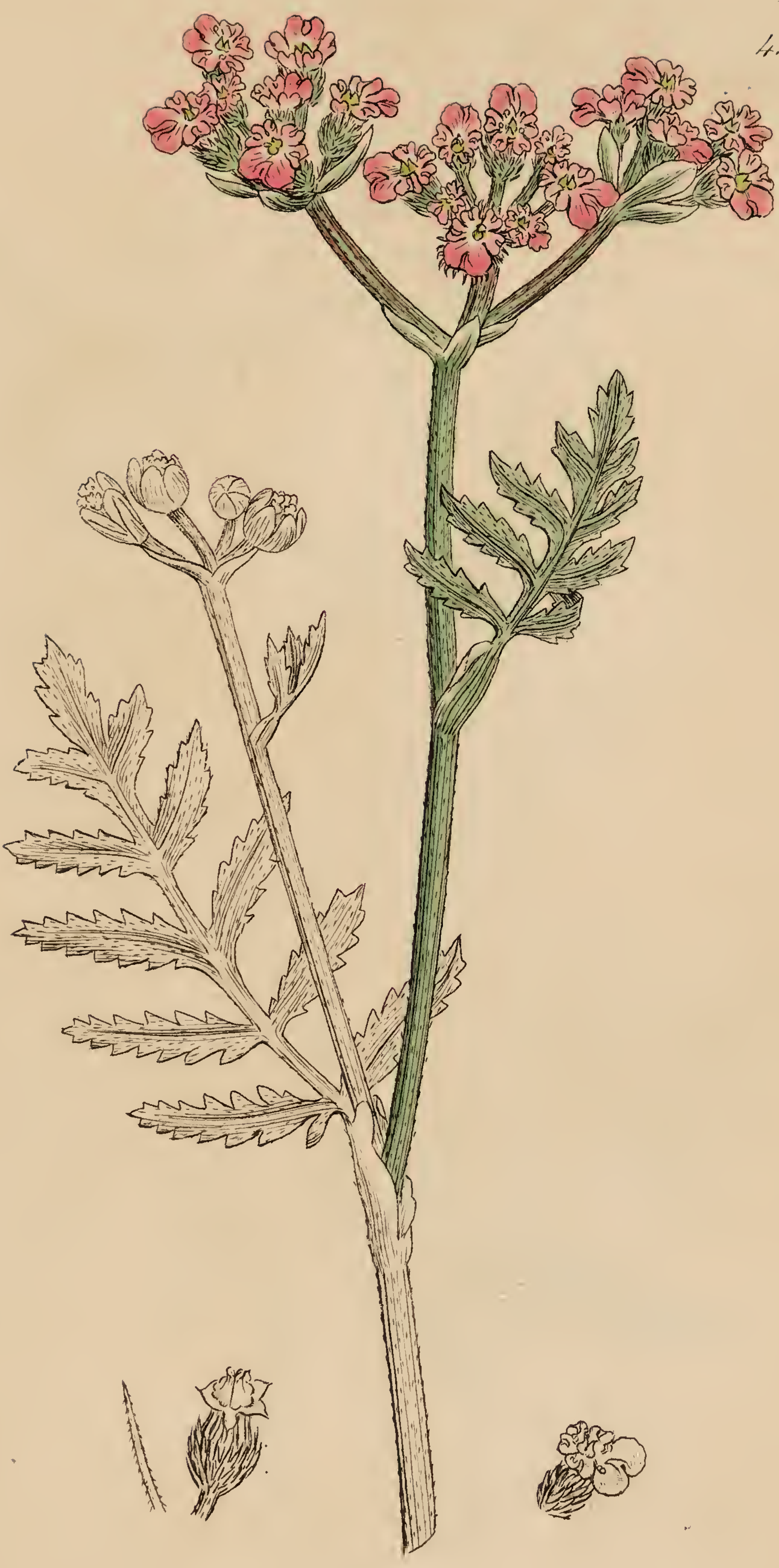


Caucalis
daucoides.

J.s Sowerby delt Augt 1 1794.

198

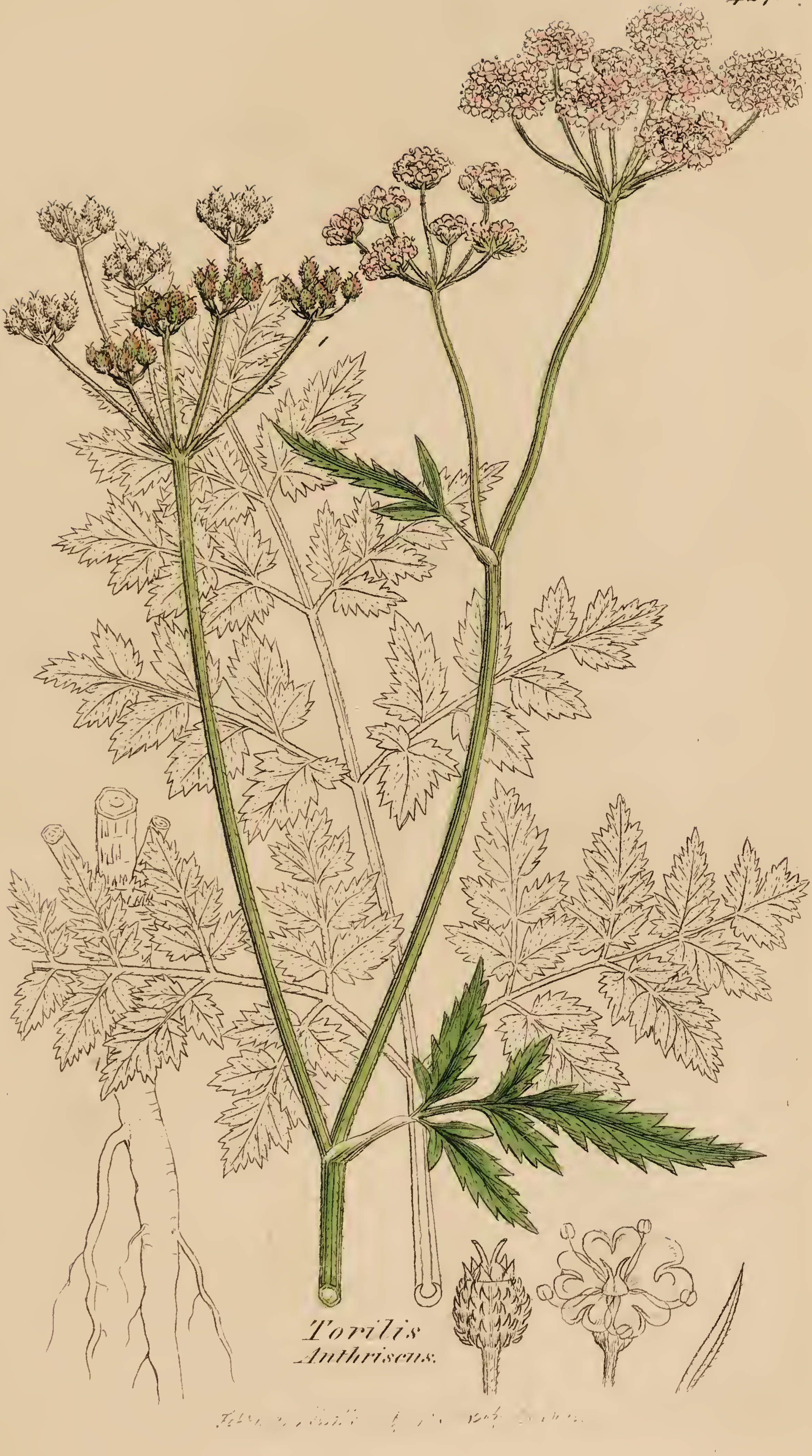
426.



Caucalis latifolia.

Js Sowerby delt Augt 1 1794

987.
427.

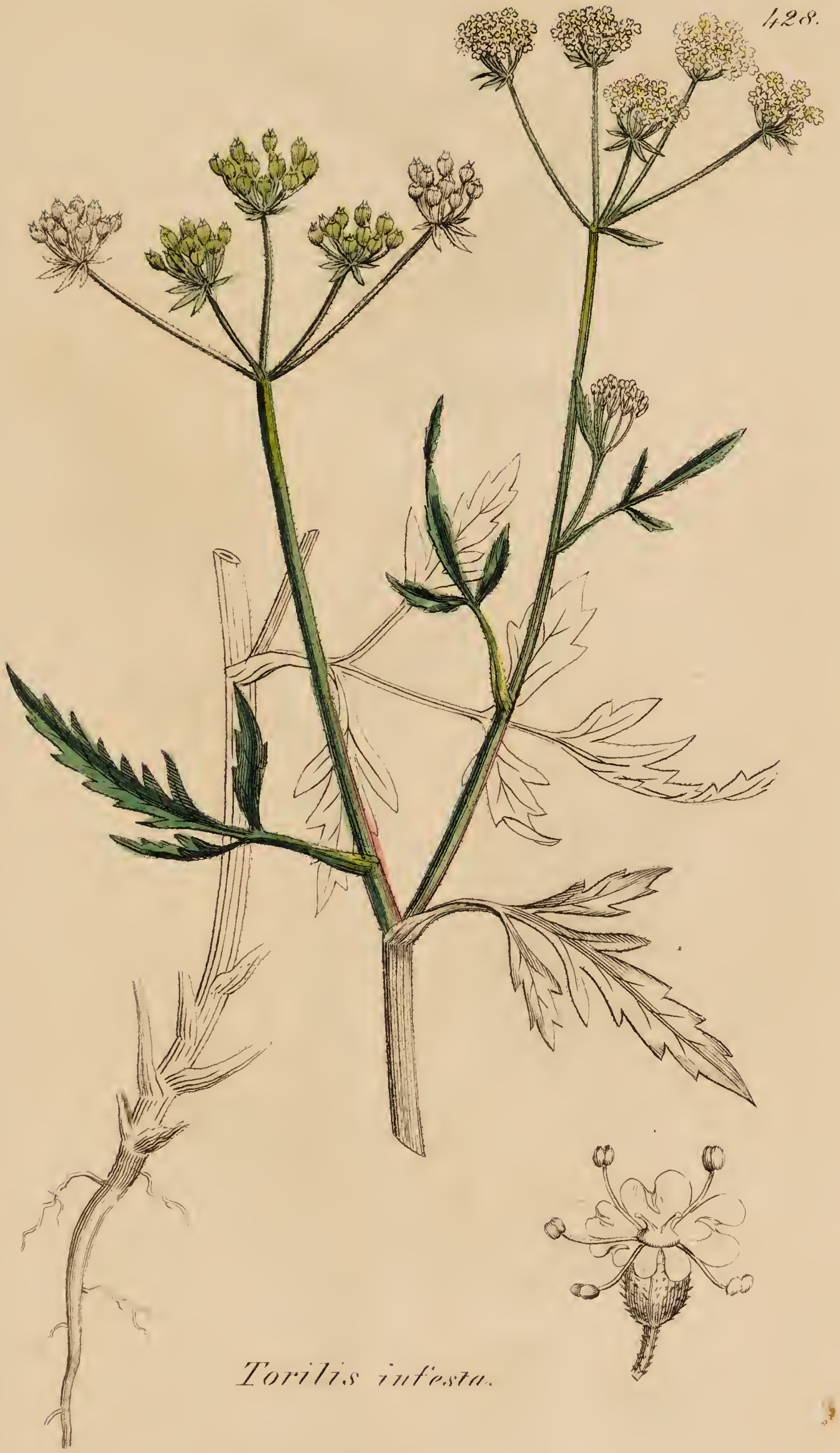


Torilis
Anthriscus.

[illegible]

1314

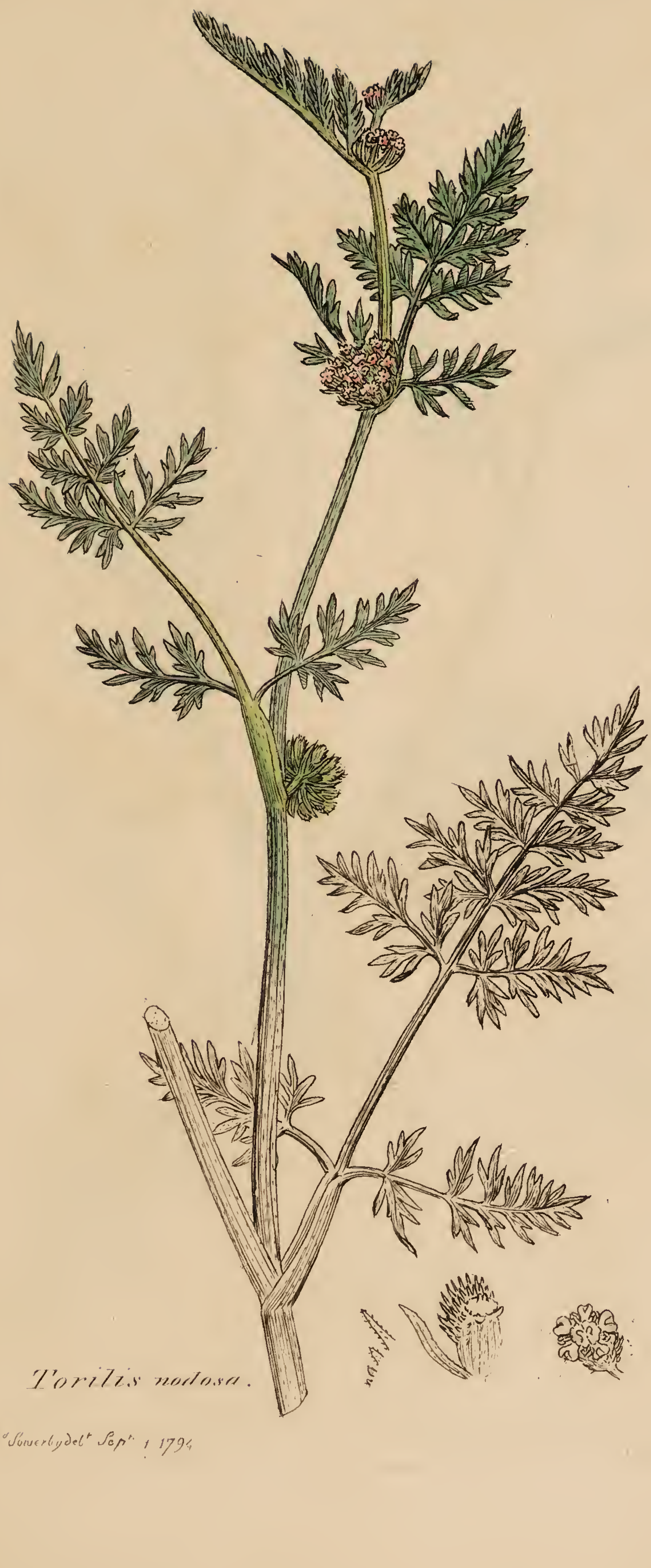
428.



Torilis infesta.

May 1.1804. Publiſhed by [illegible]rby London.

199
:
429.

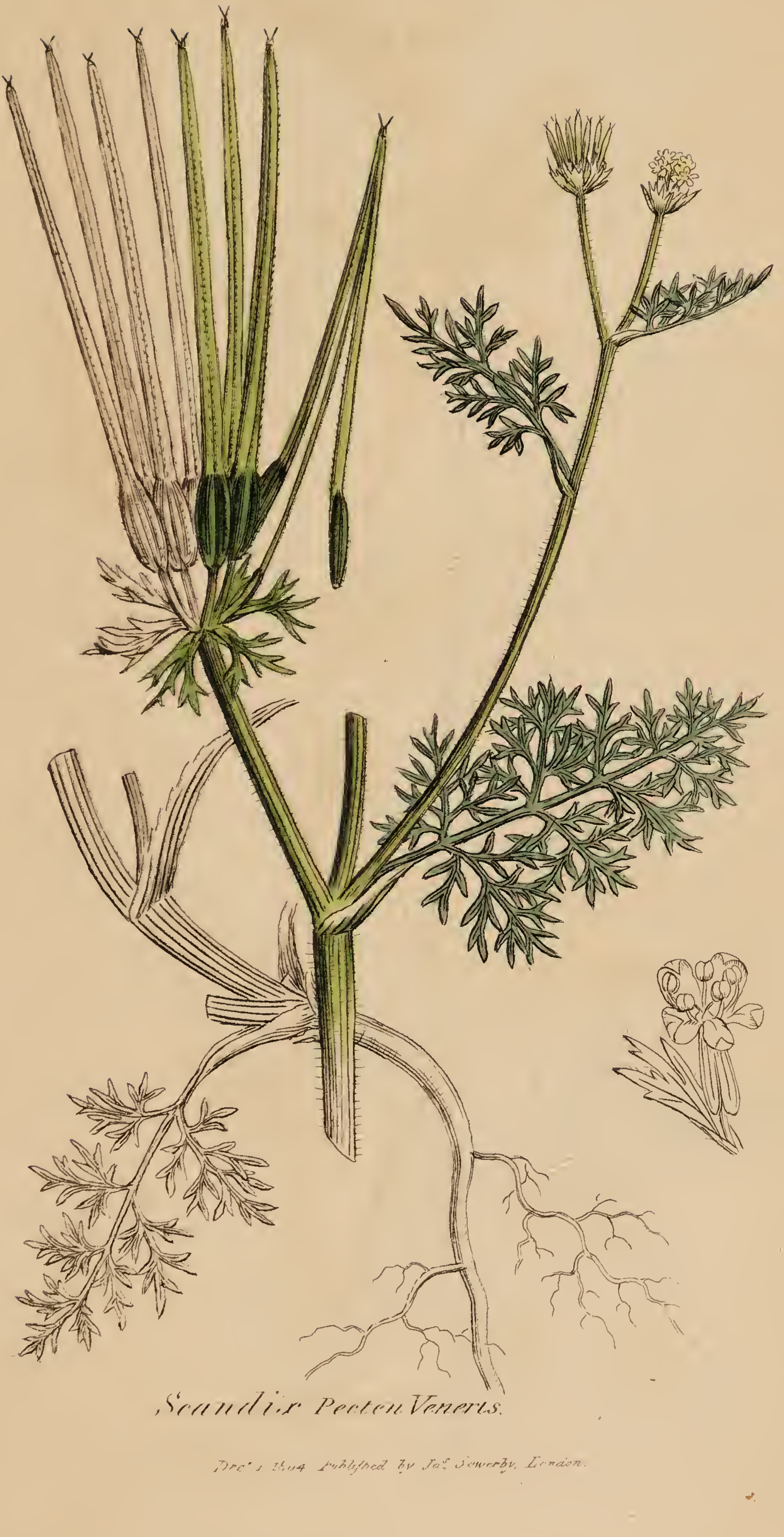


Torilis nodosa.

J.s Sowerby del.t Sep.t 1 1794

1397

430.

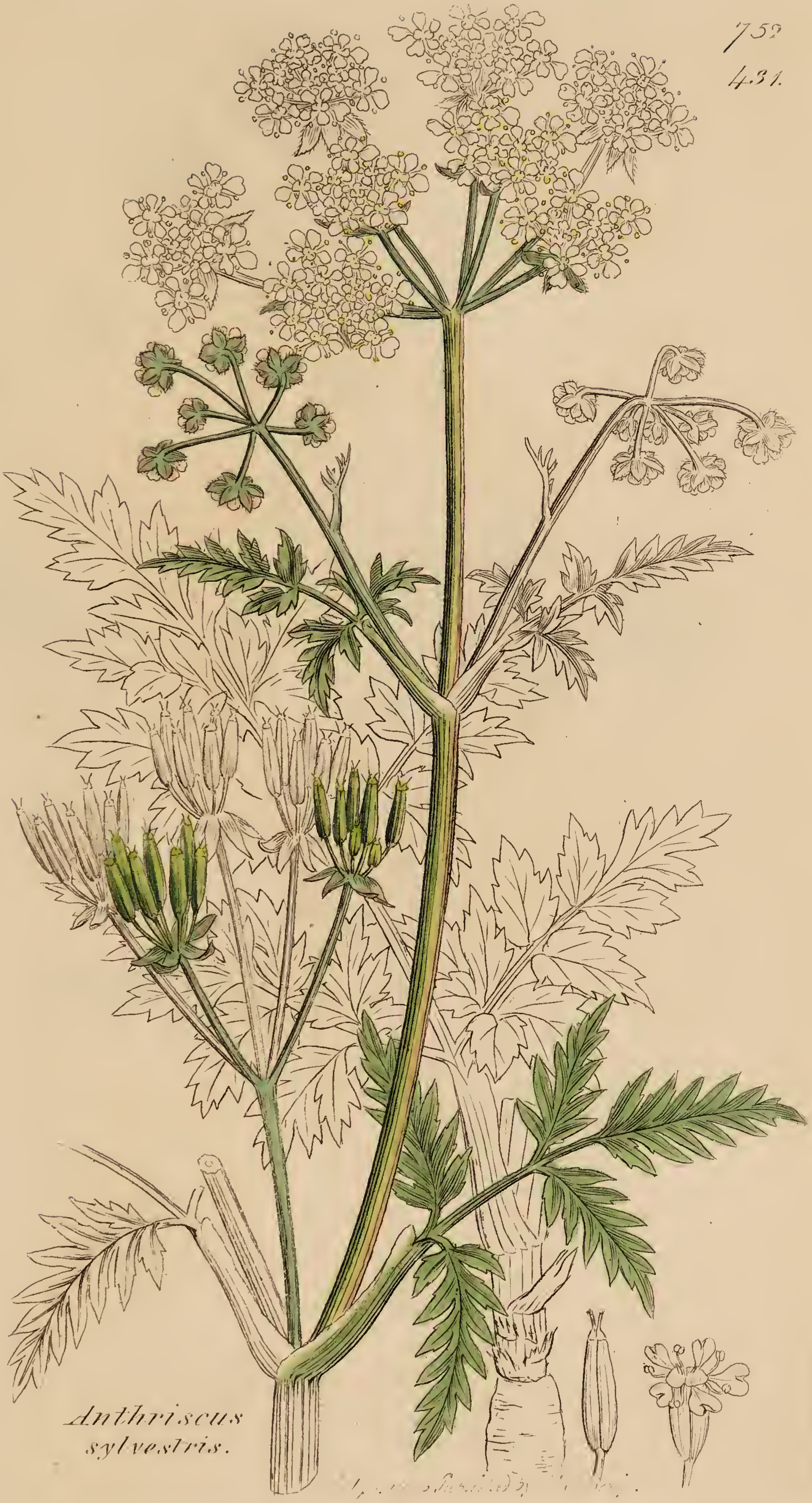


Scandix Pecten Veneris.

Decr 1 1804 Published by Jas. Sowerby, London.

752

431.

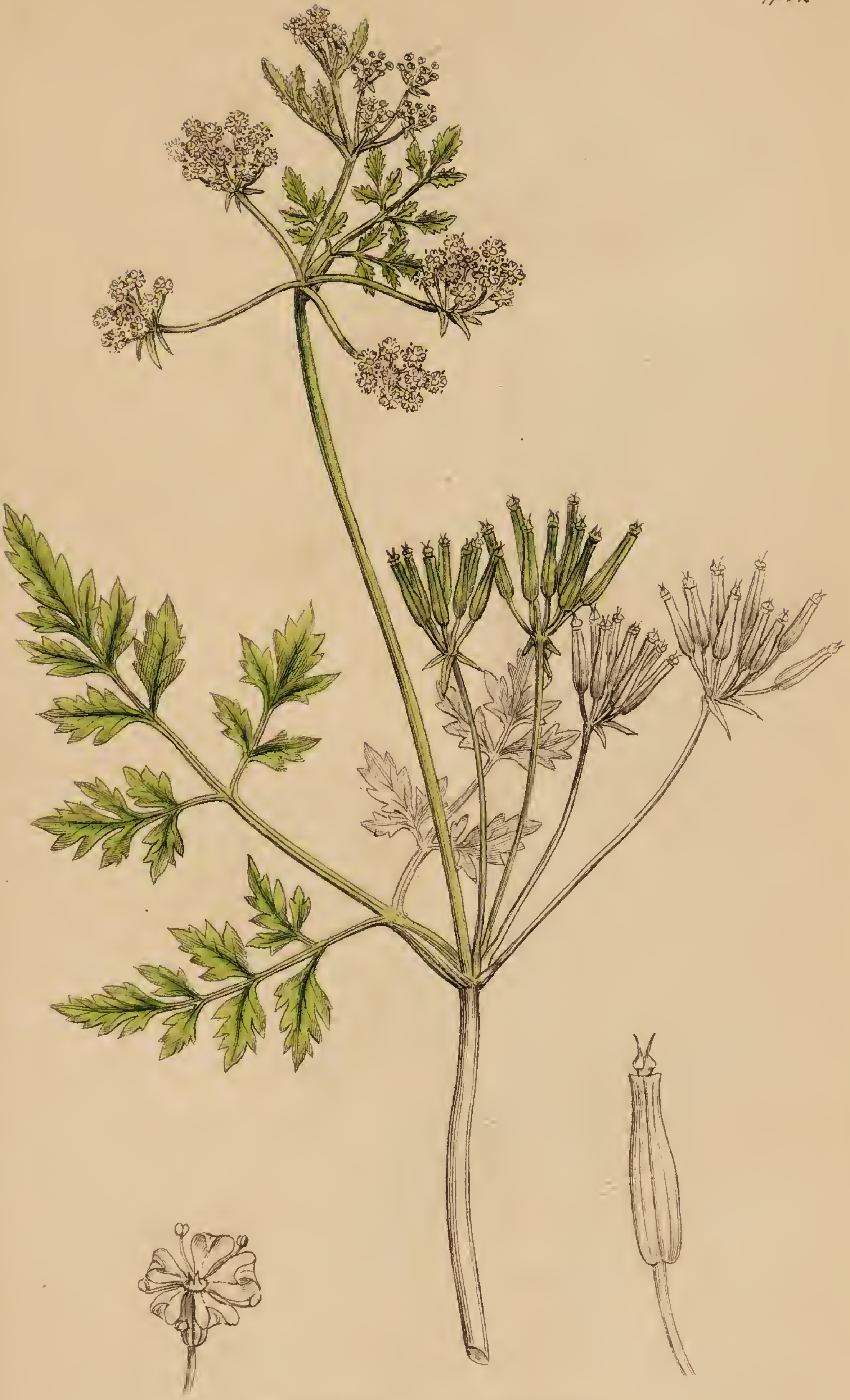


Anthriscus sylvestris.

[illegible]

1268

1432

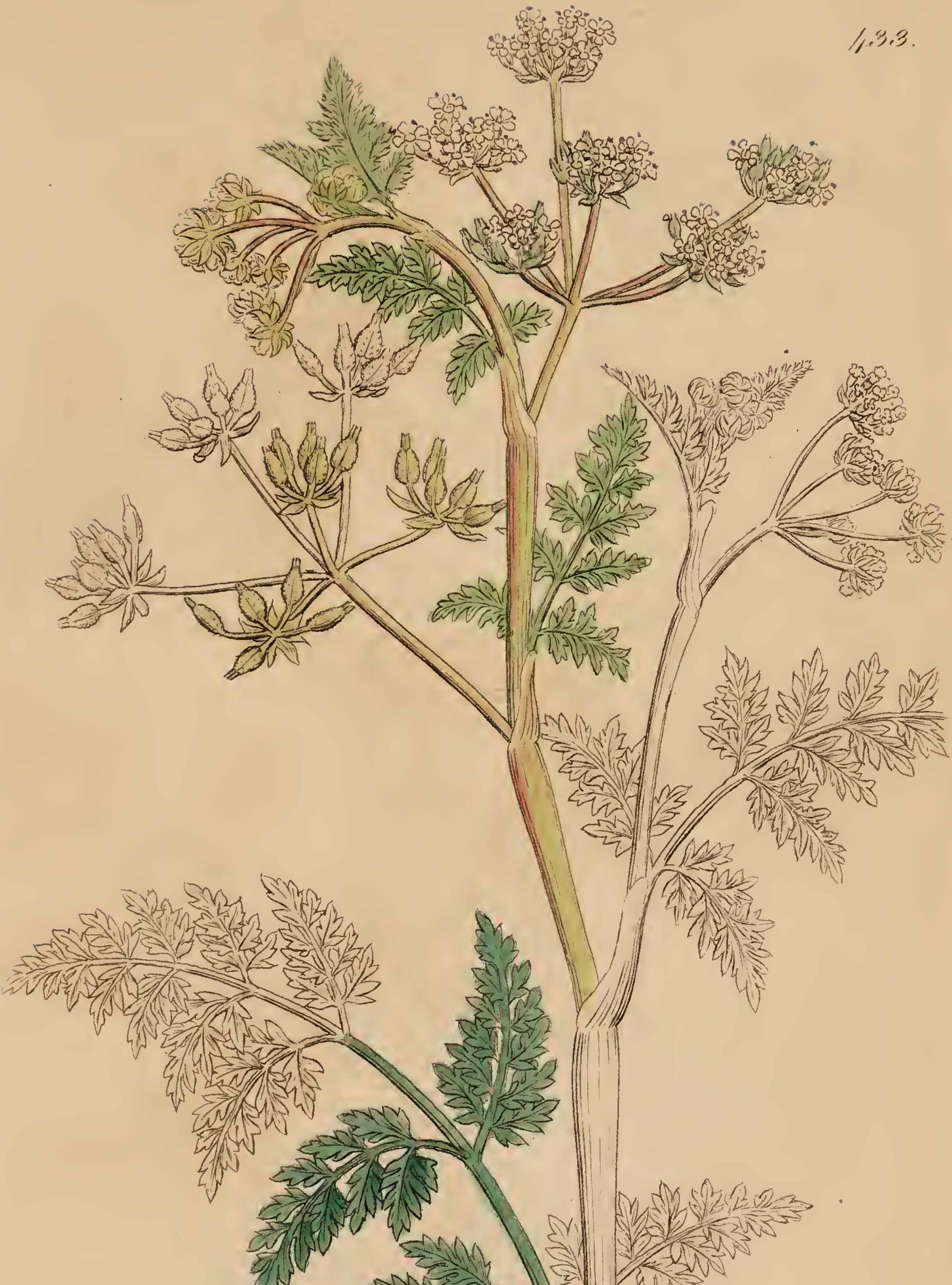


Anthriscus Cerefolium.

Feby 1. 1804 Publish'd by Jas Sowerby. London.

818.

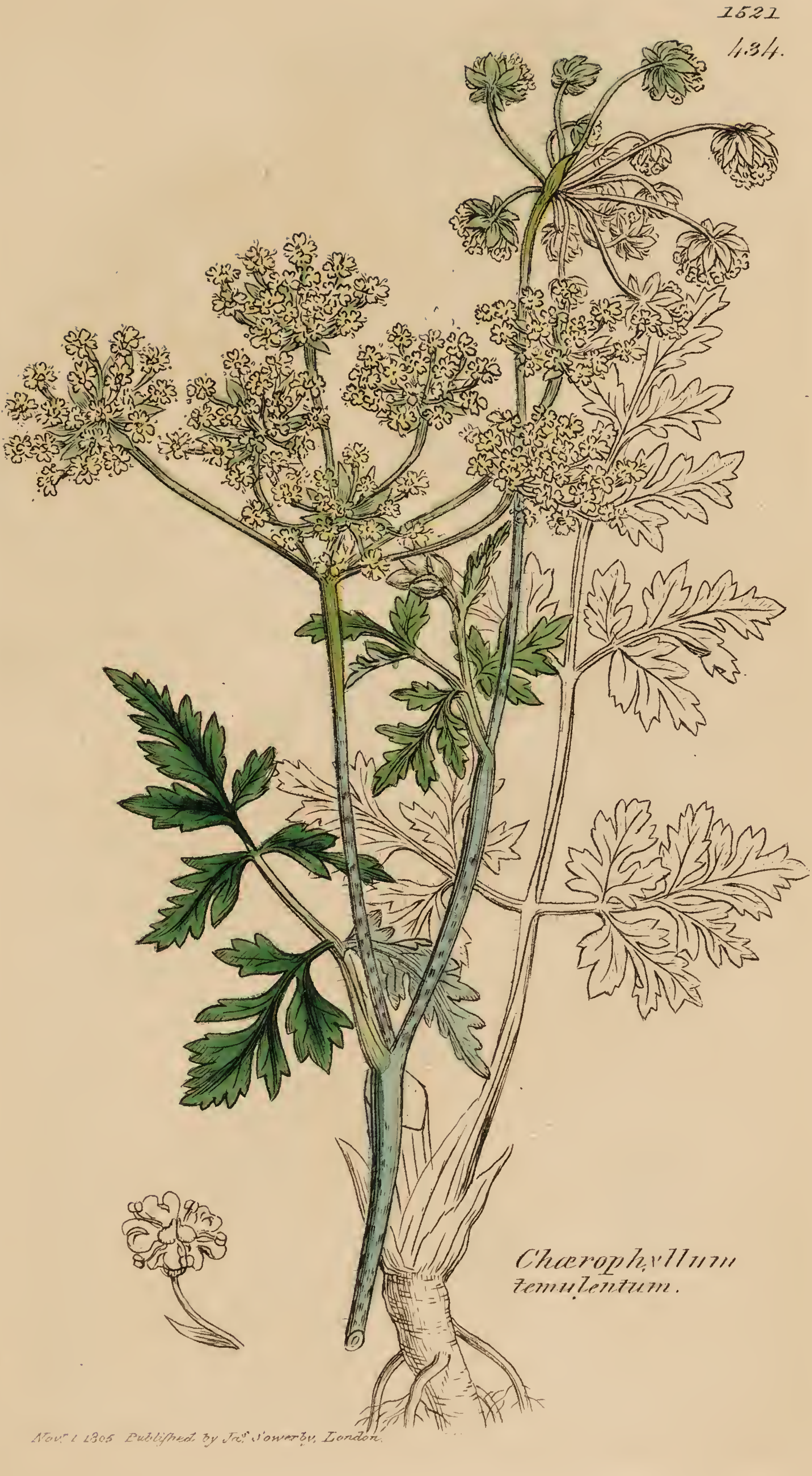
433.



Anthriscus
vulgaris.

1521

434.

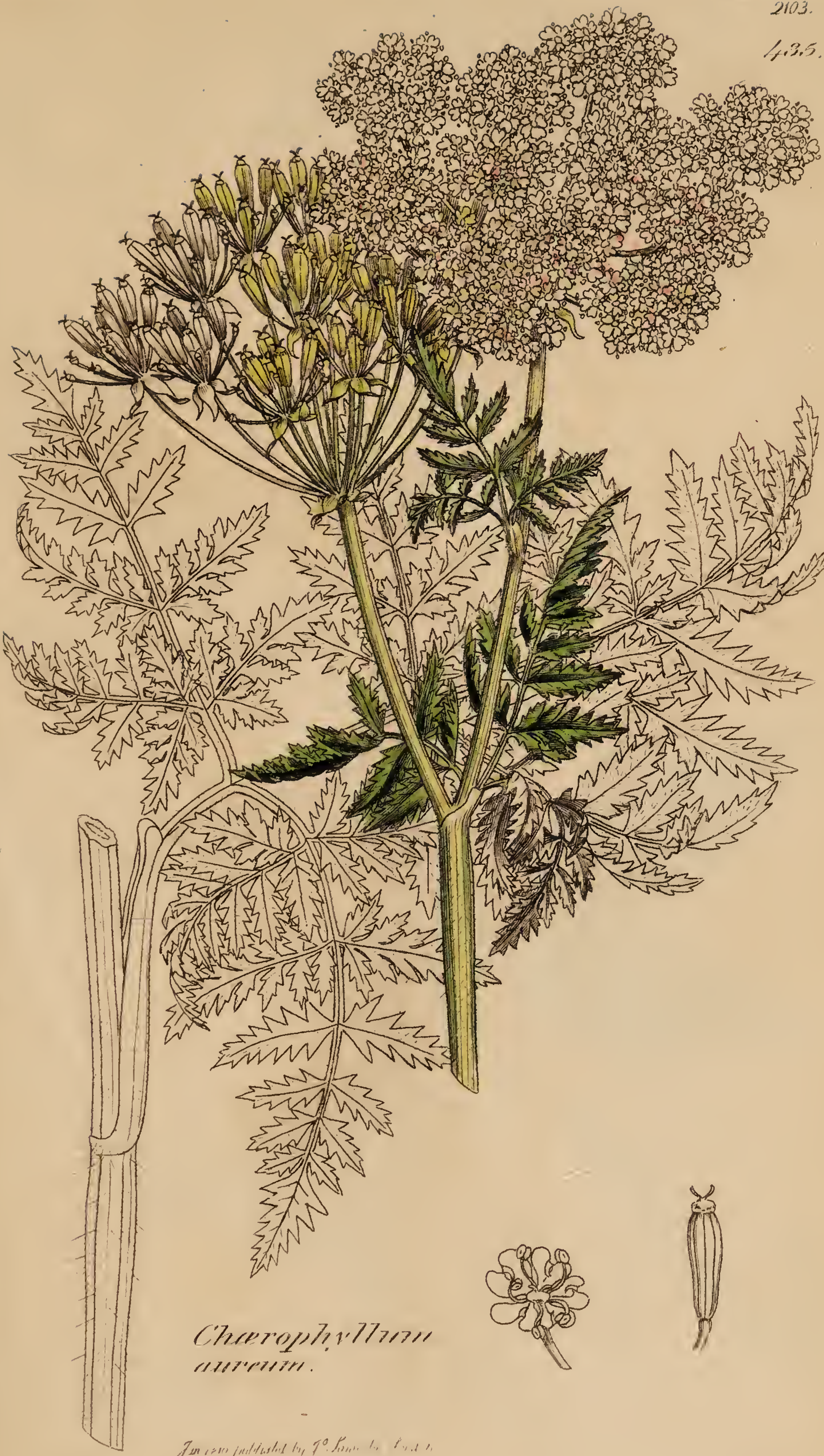


Chærophyllum temulentum.

Novr. 1 1805 Publiſhed by Jas. Sowerby, London.

2103.

435.

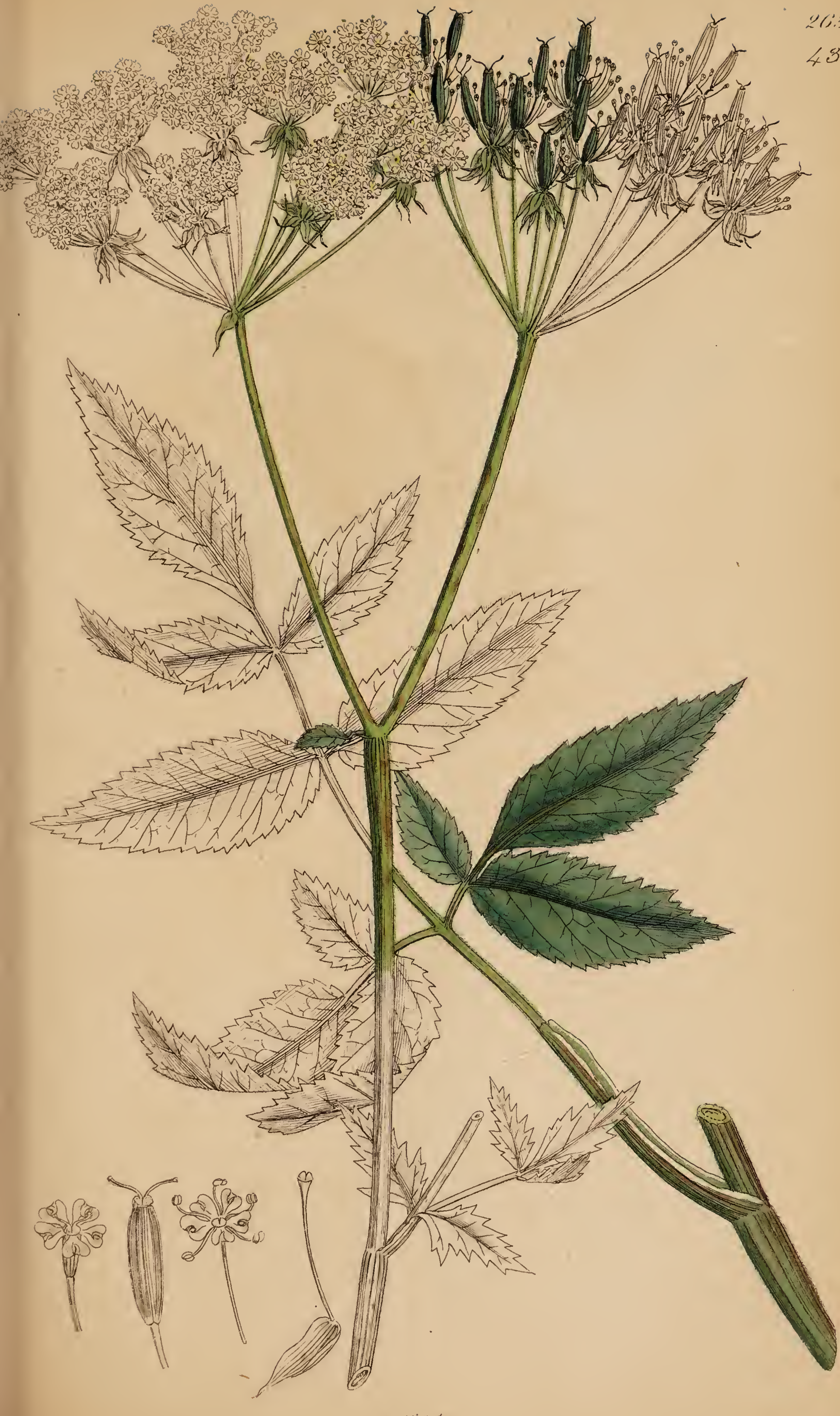


Chærophyllum aureum.

Jan 1810 published by Jo. Sowerby London

2636.

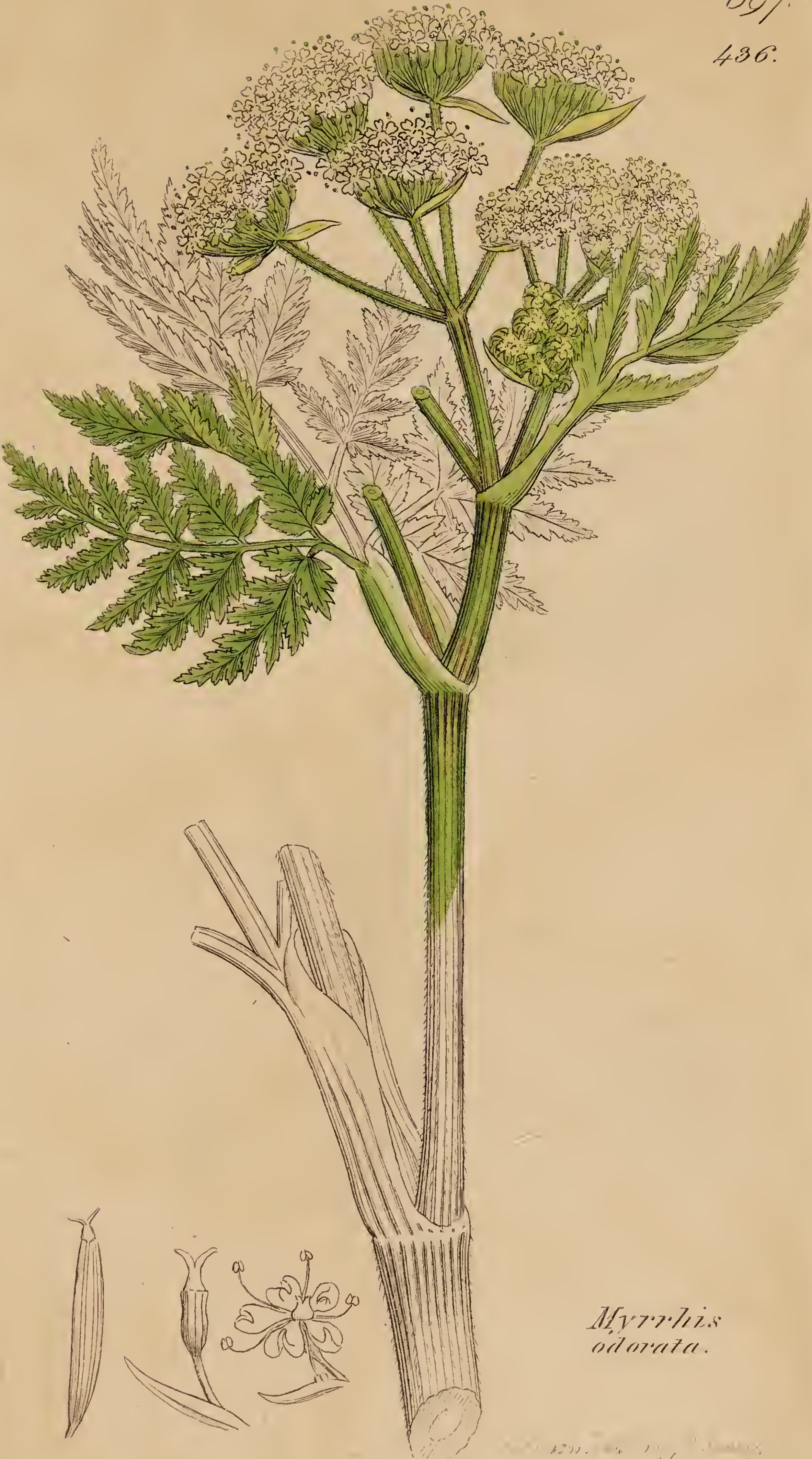
435*



April 1st 1830.

697.

436.

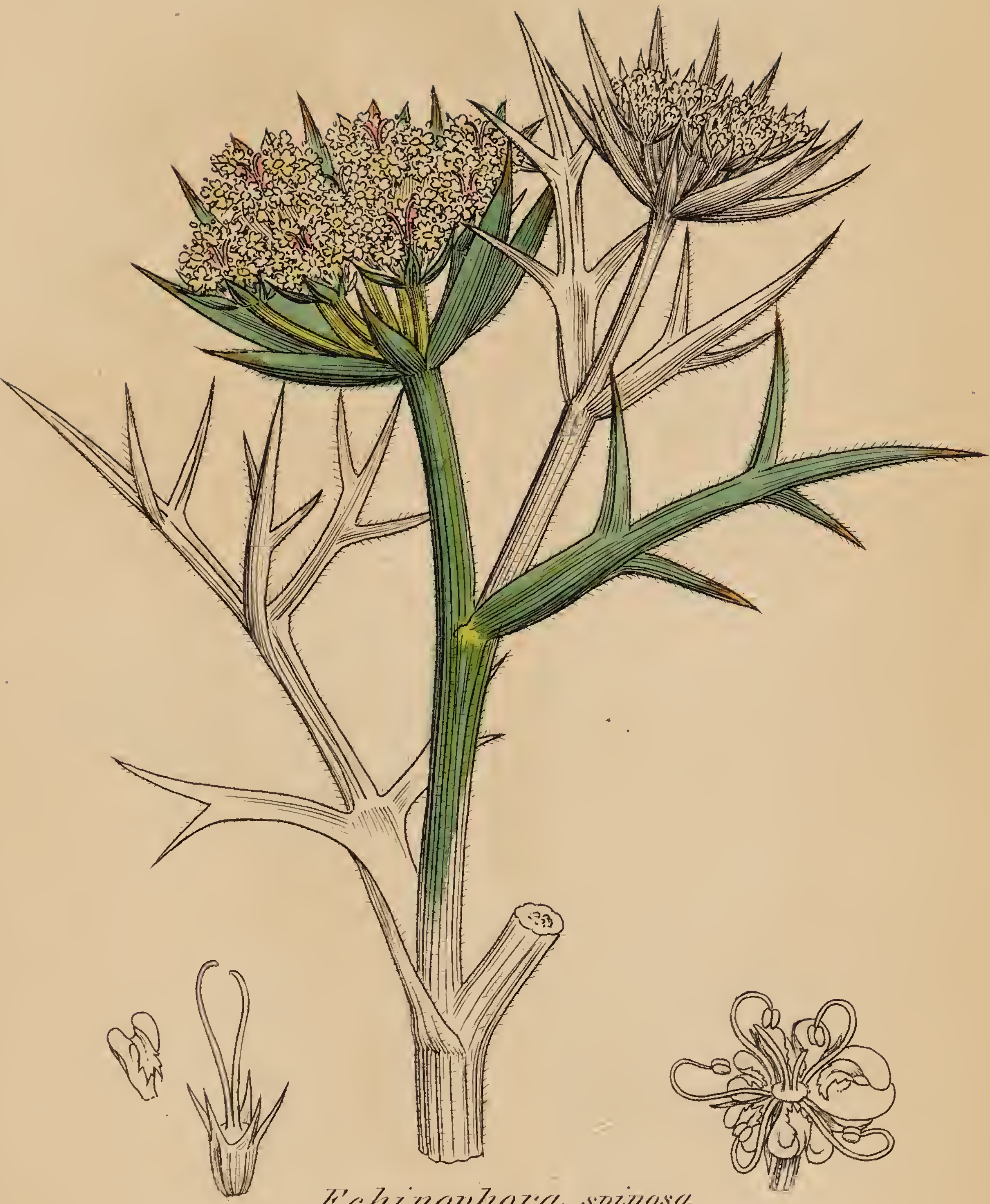


Myrrhis odorata.

[illegible]

2413.

437.

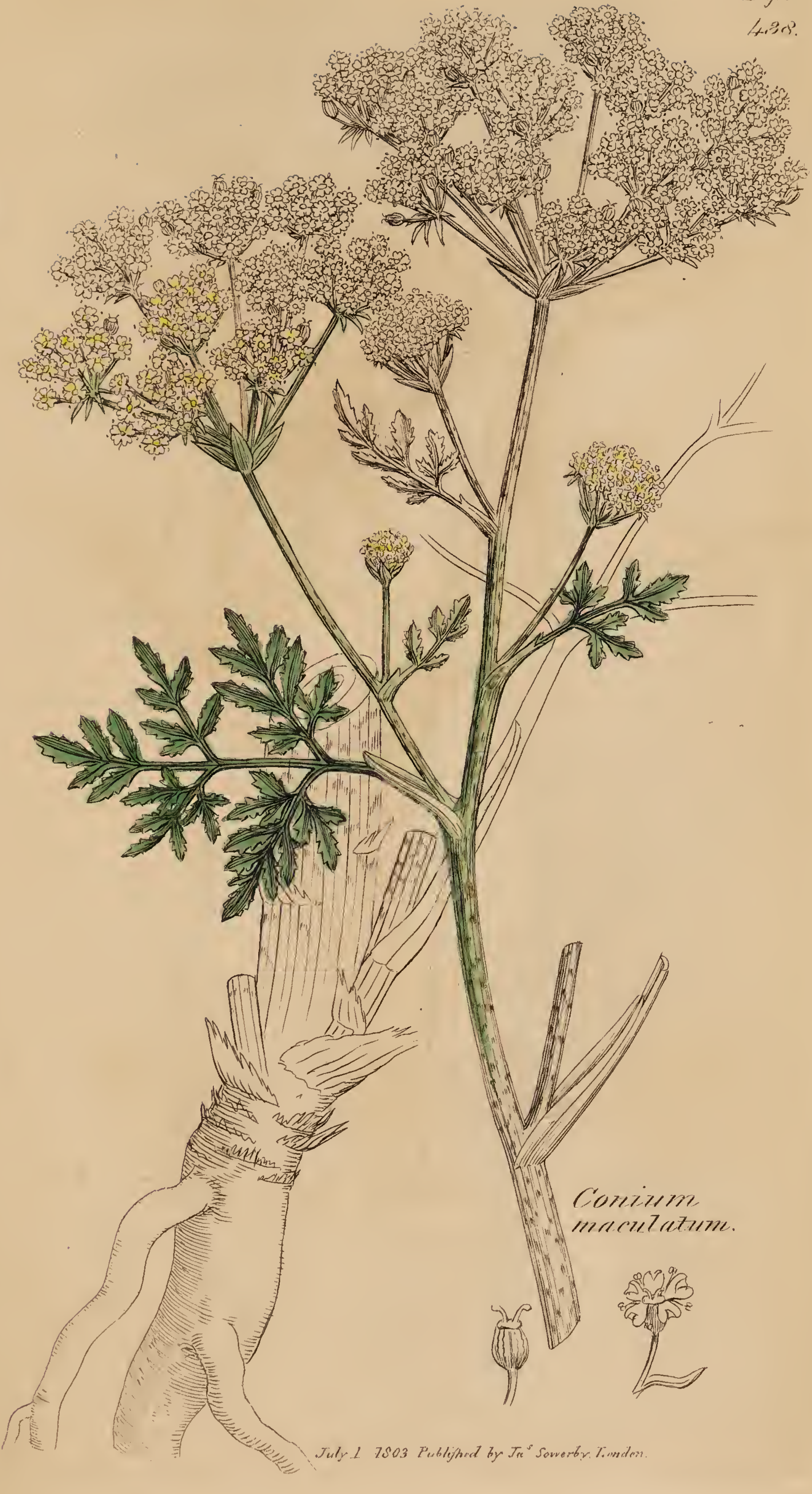


Echinophora spinosa

May 1 1812 published by Jas. Sowerby London.

1191

438.

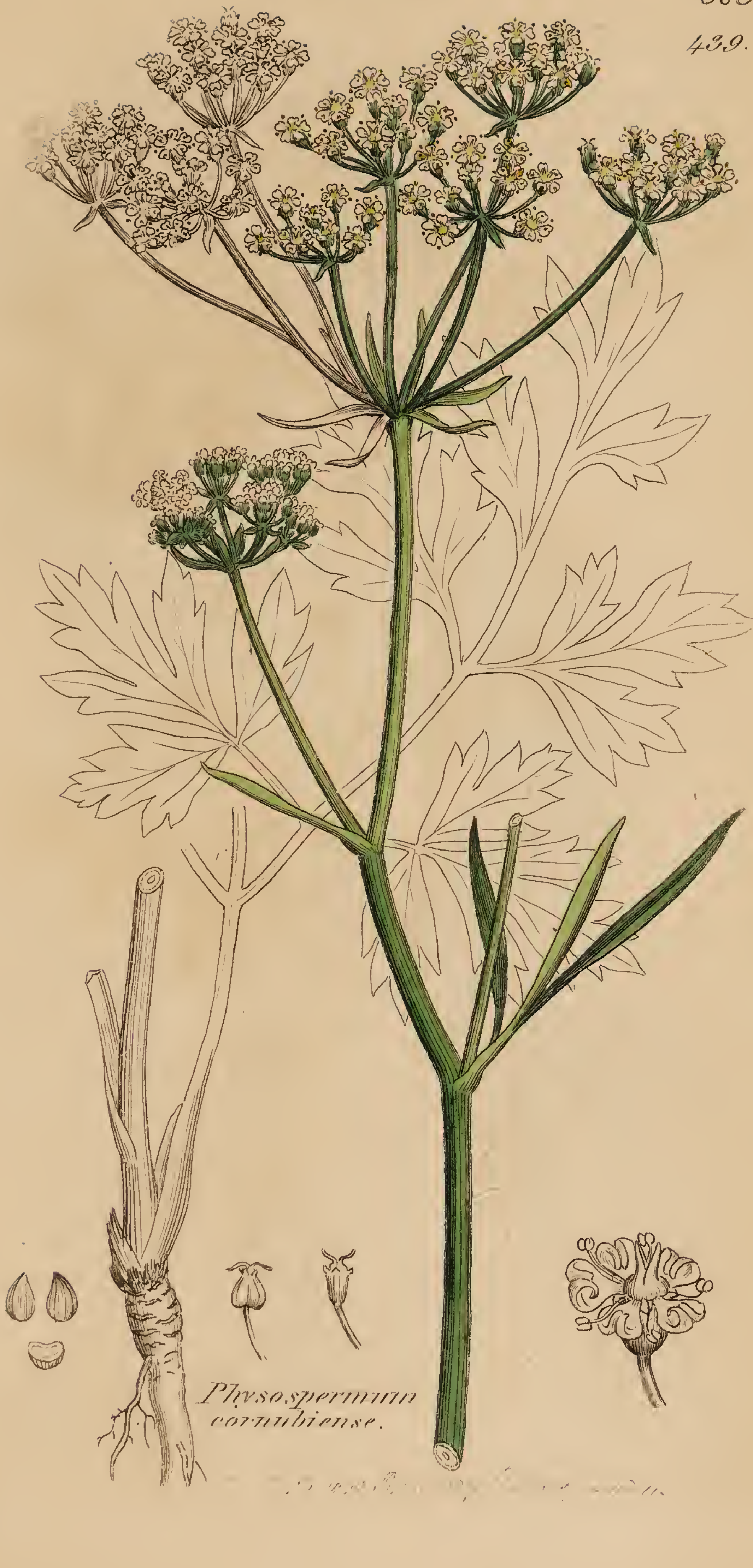


Conium
maculatum.

July 1 1803 Publiſhed by Jas Sowerby London.

683.

439.

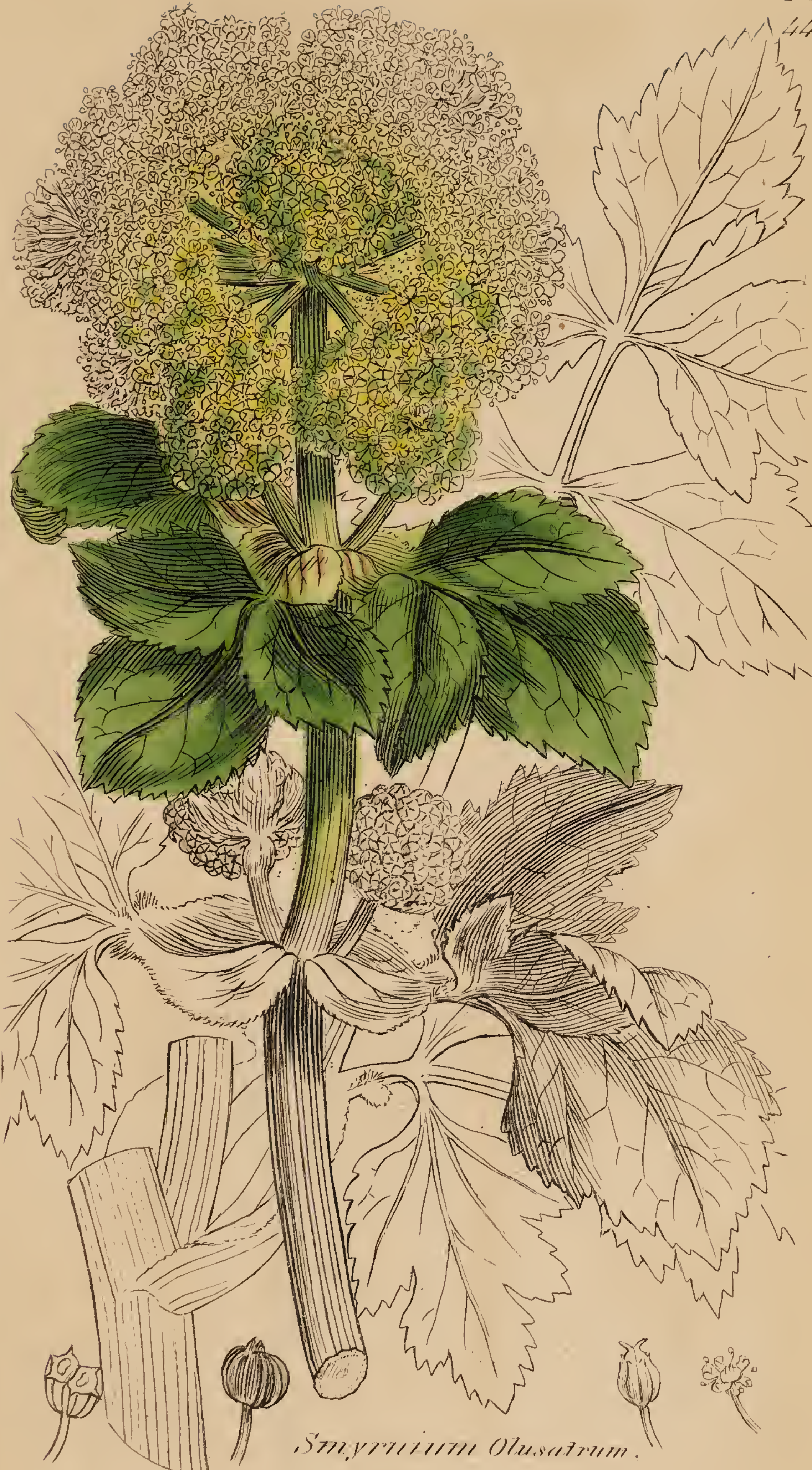


Physospermum cornubiense.

[illegible]

230.

440.

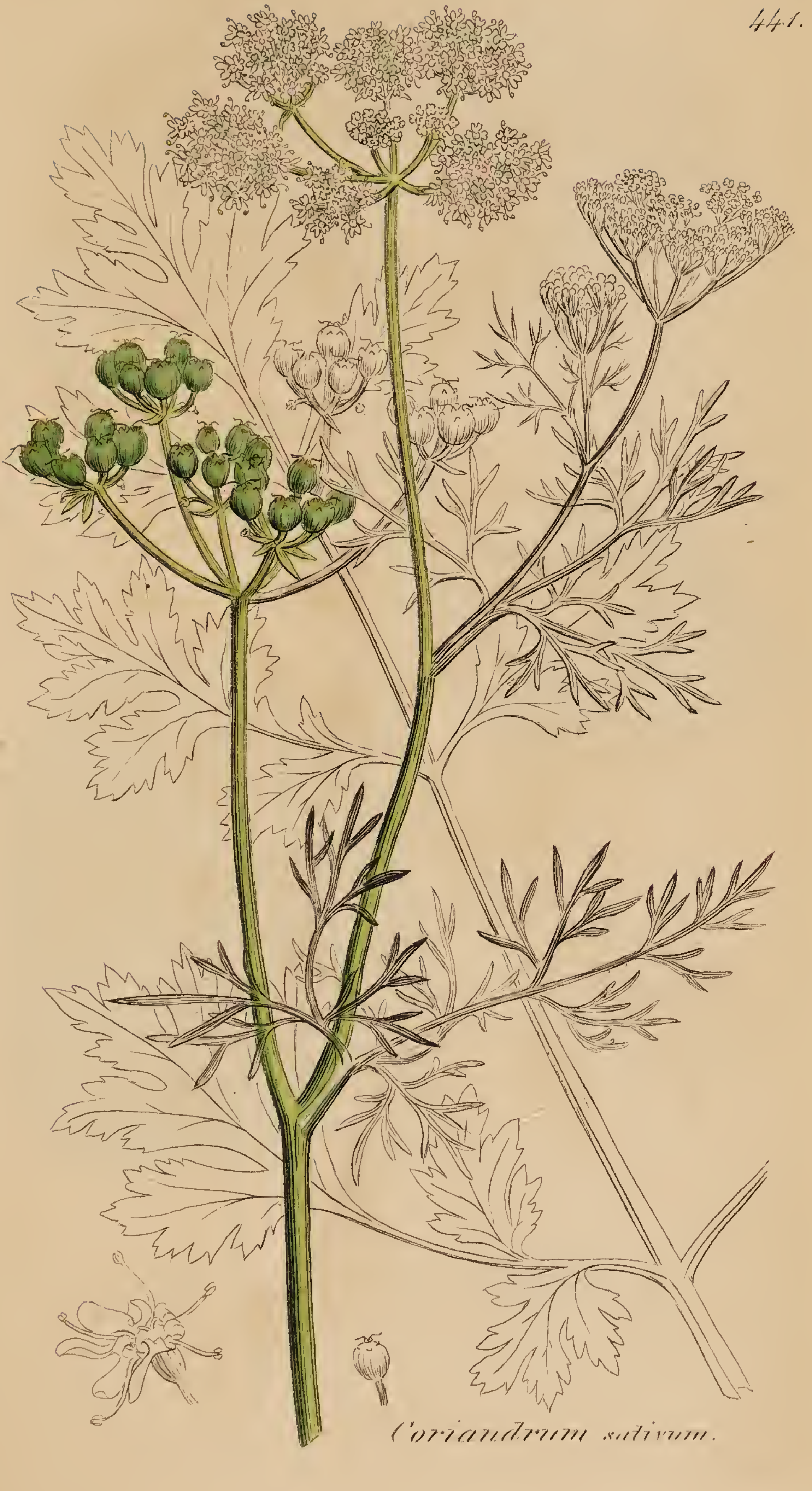


Smyrnium Olusatrum.

Feb. 1. 1795 Publish'd by Js Sowerby Lond.

67.

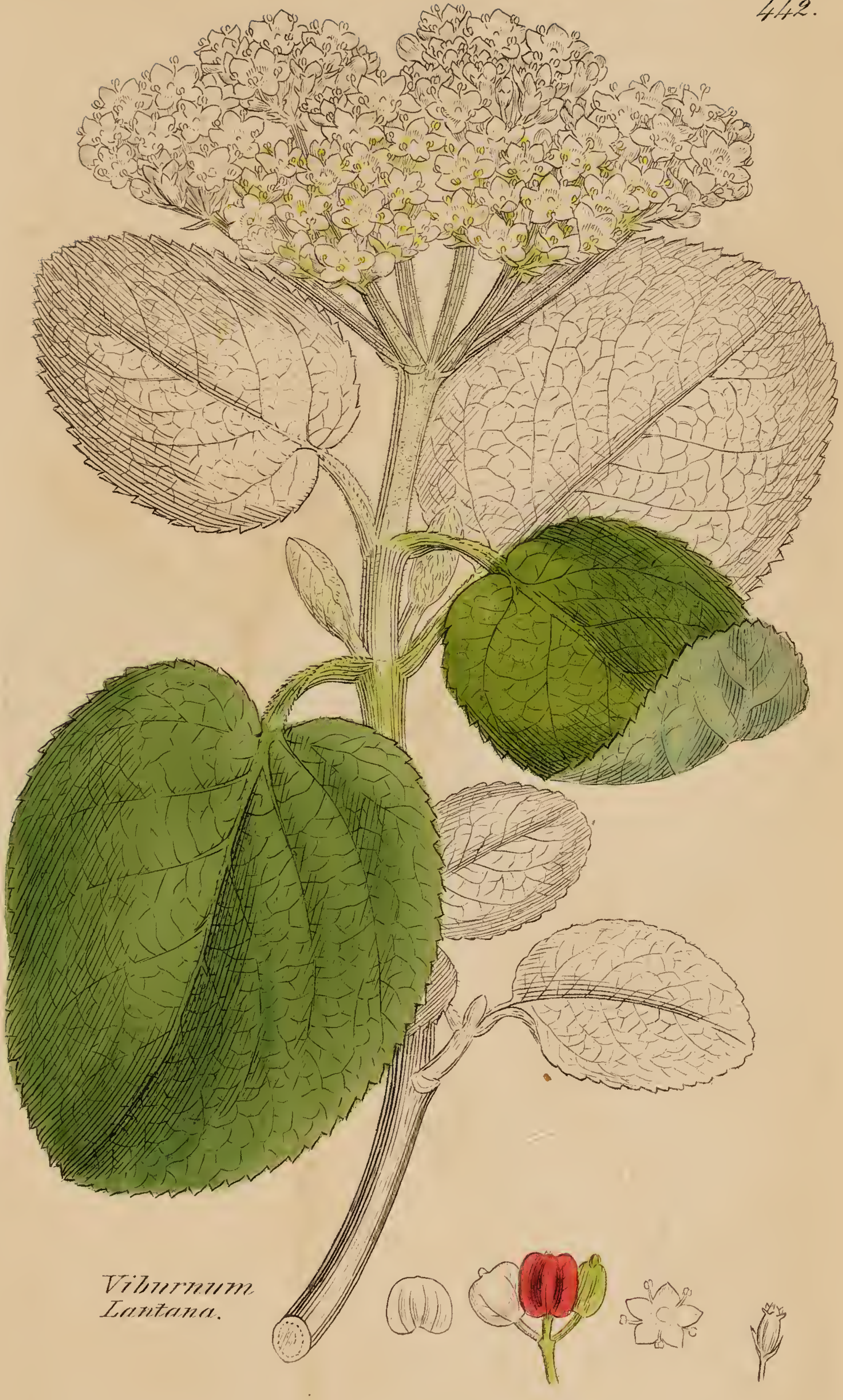
441.



Coriandrum sativum.

331

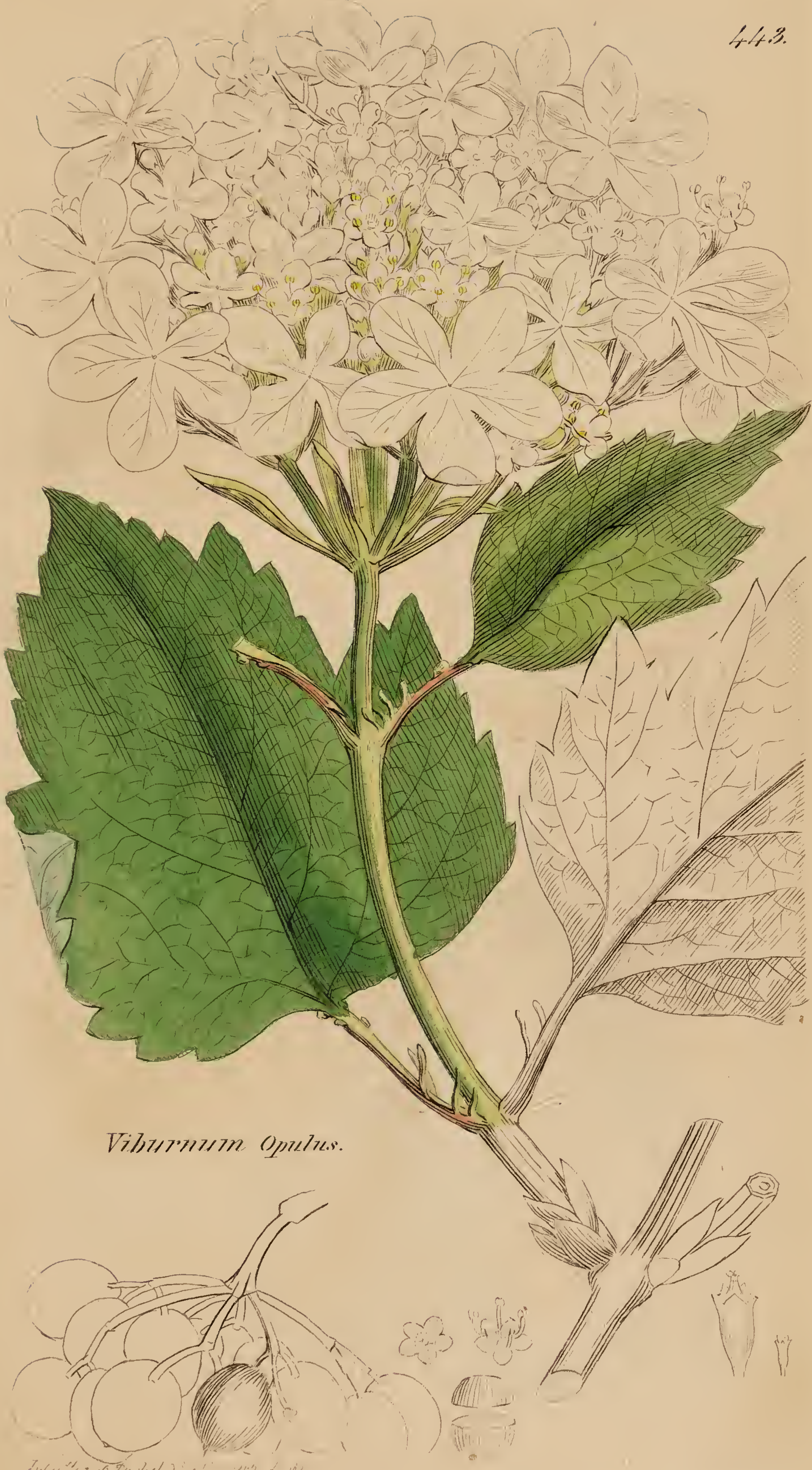
442.



Viburnum Lantana.

332

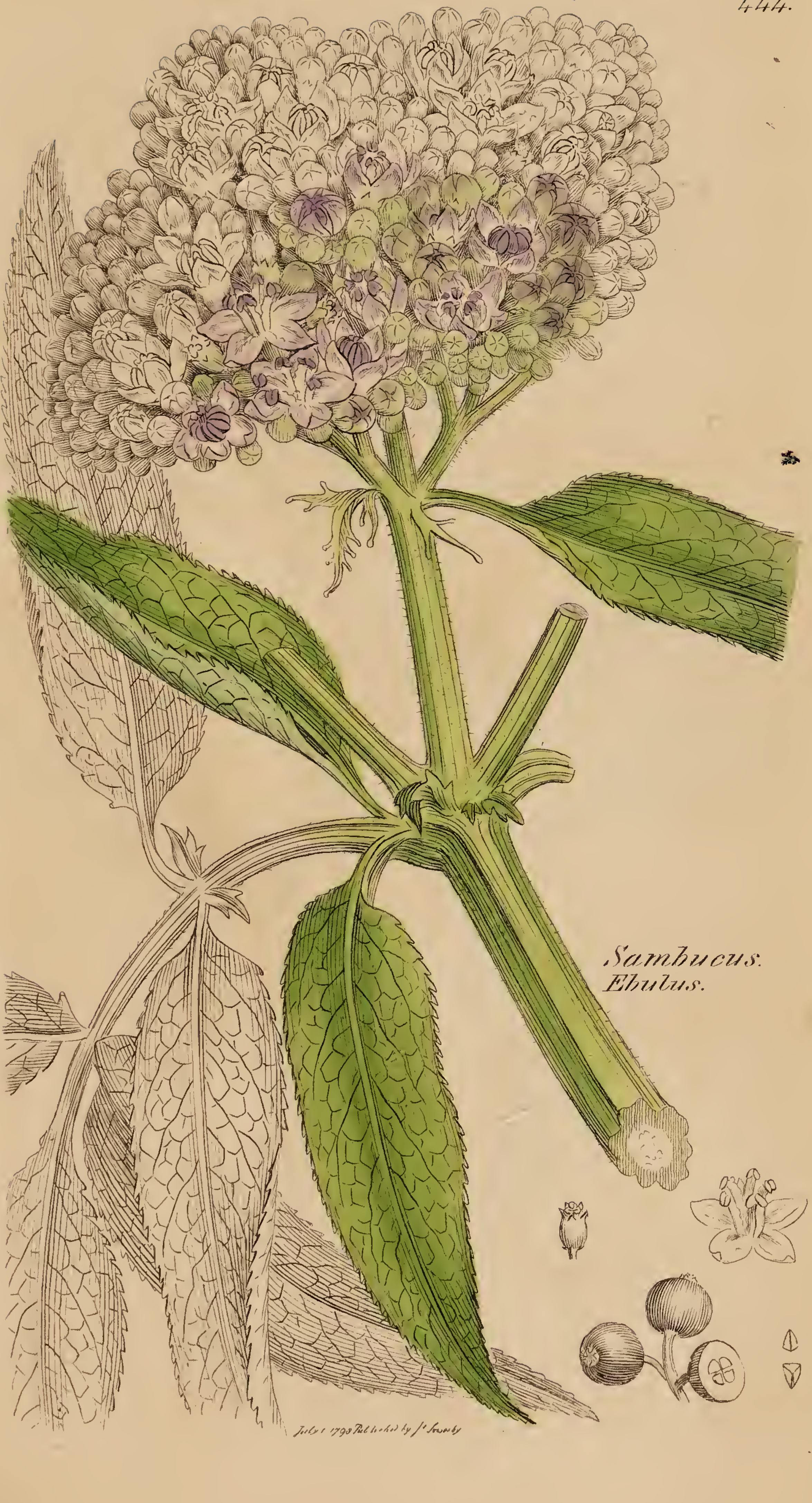
443.



Viburnum Opulus.

July 1st 1796 Published [illegible]

475
444.

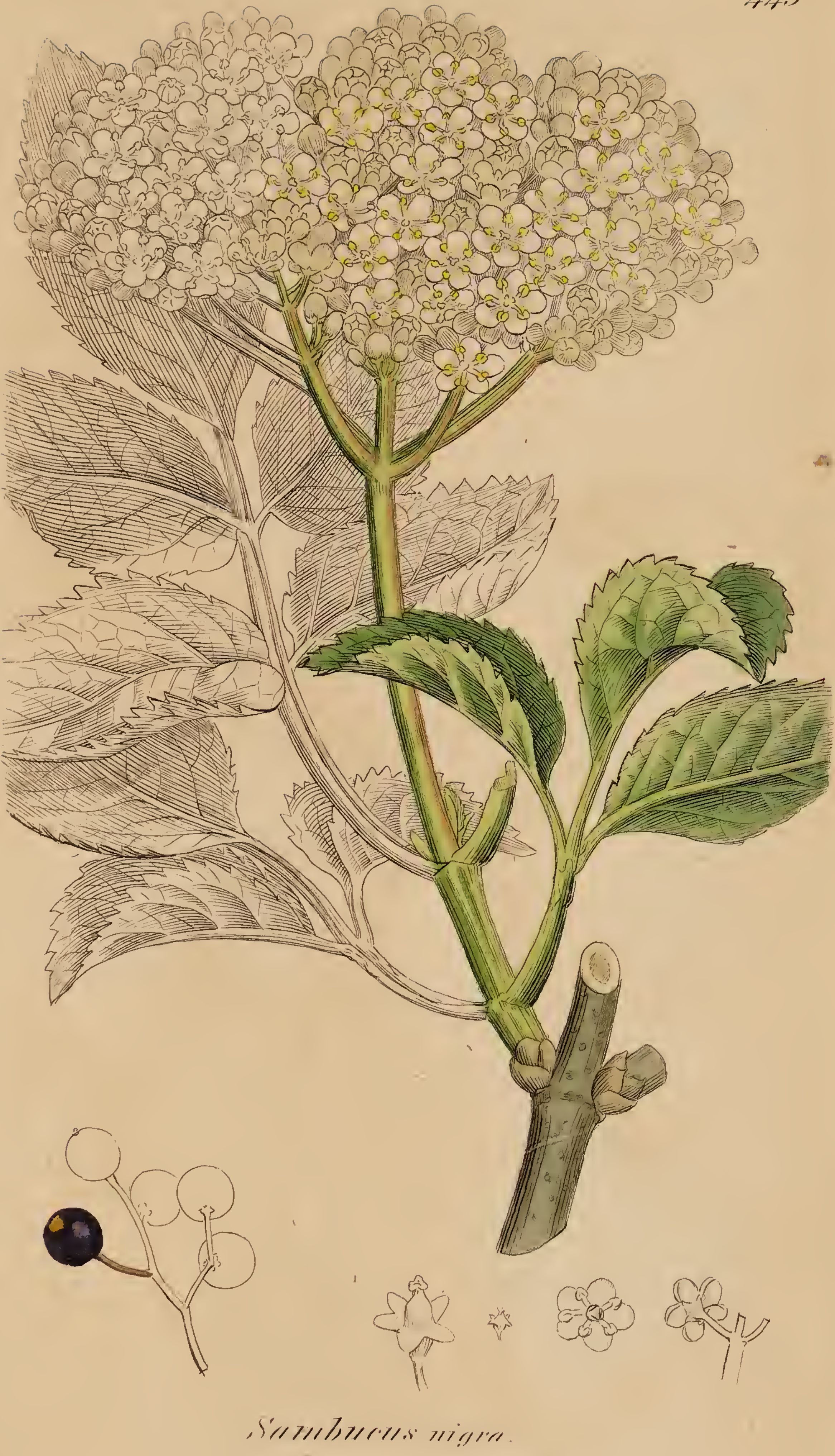


Sambucus.
Ebulus.

July 1 1798 Published by Js Sowerby

476

445

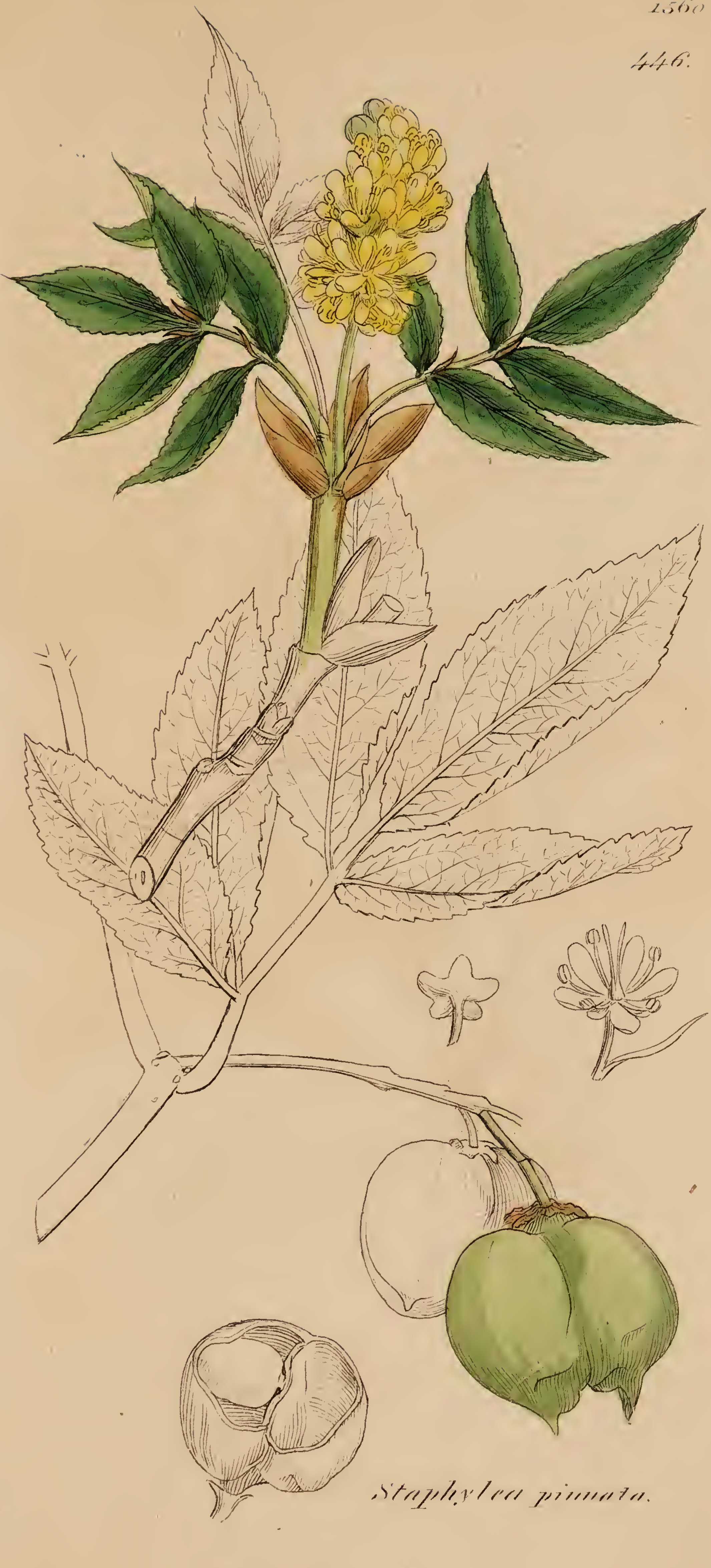


Sambucus nigra.

July 1 1798 Published by Jas Sowerby London

1560

446.

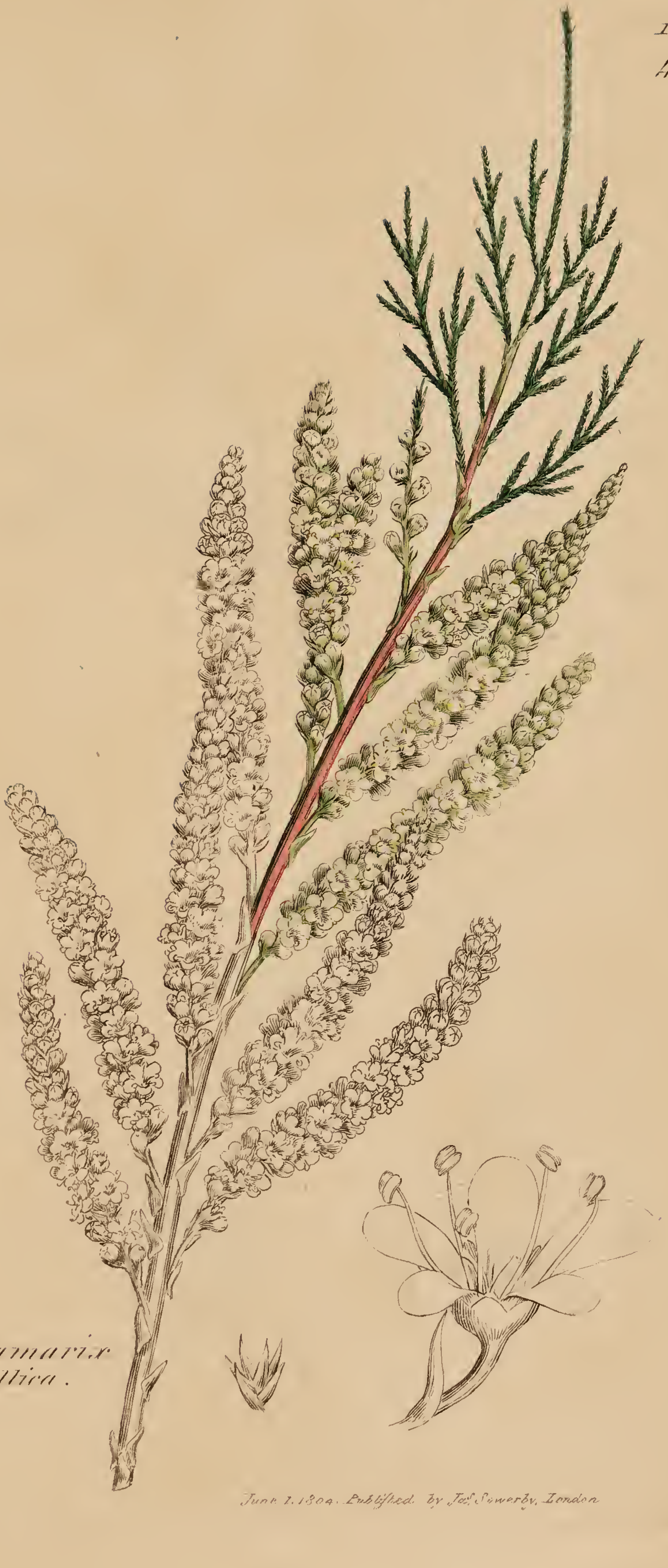


Staphylea pinnata.

Feby 1. 1800. Published by Ja. Sowerby. London.

1318

447.

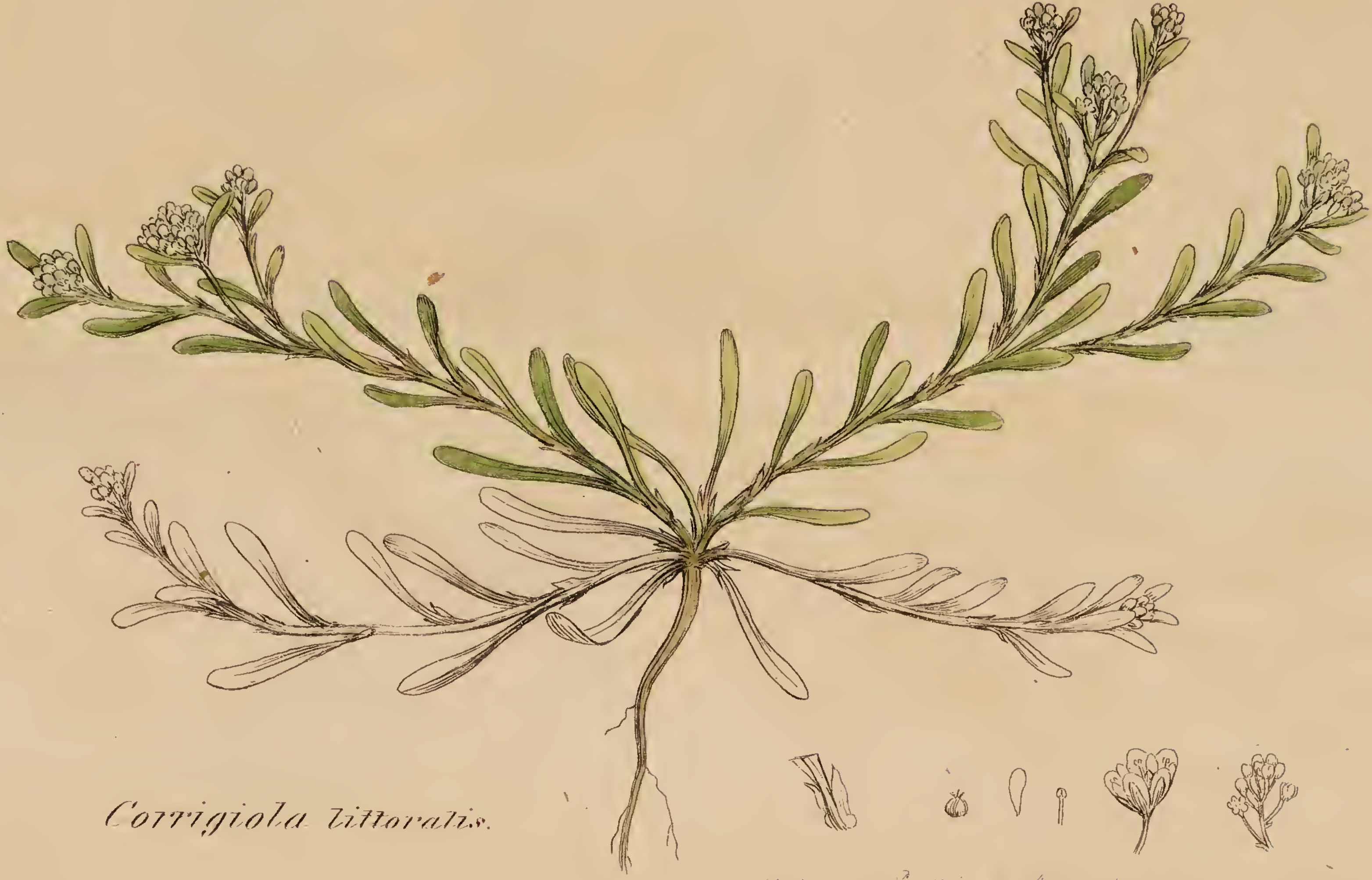


Tamarix
gallica.

June 1. 1804. Publiſhed by Jas. Sowerby, London

668

148.

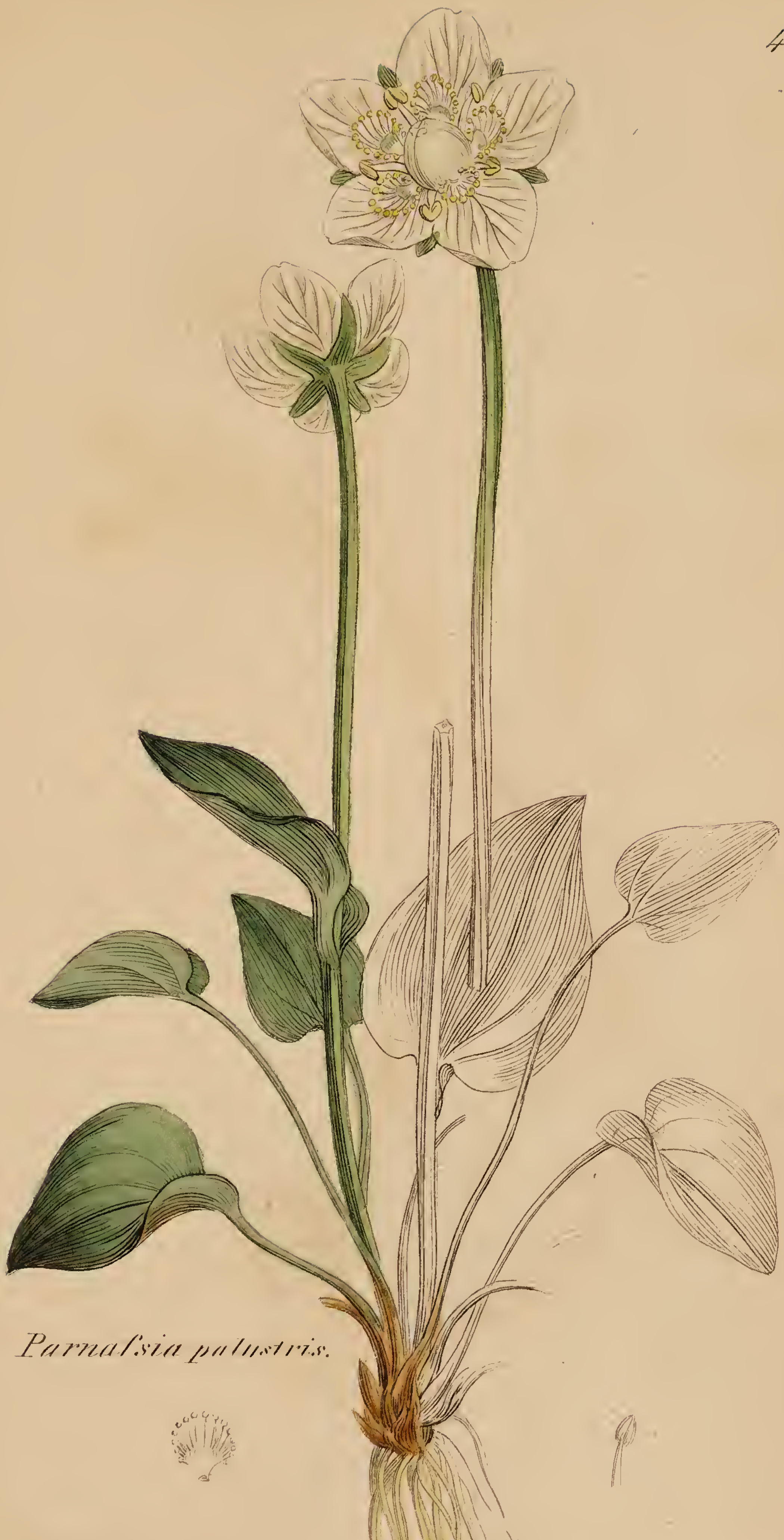


Corrigiola littoralis.

[illegible] Published by [illegible]

82

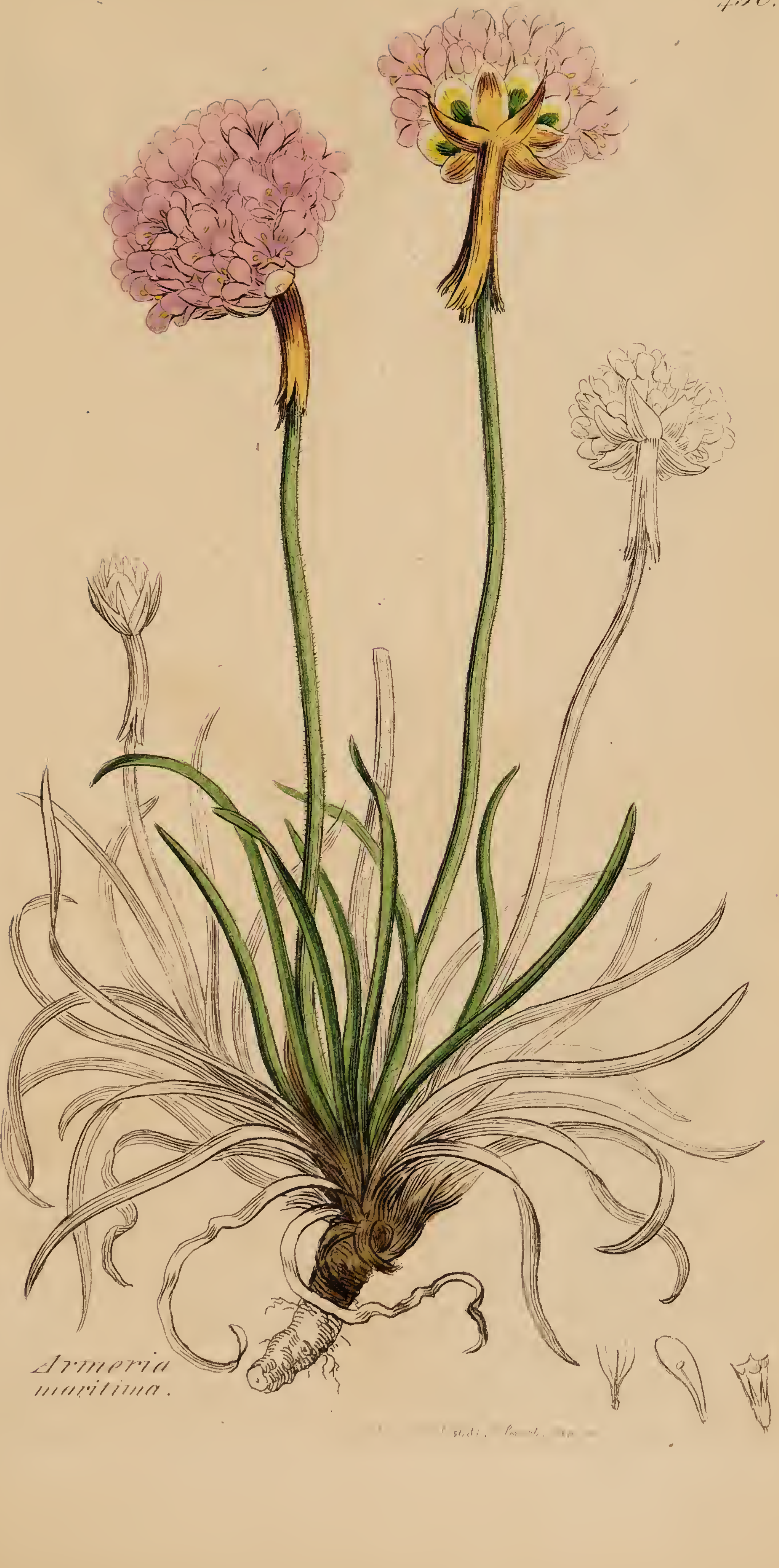
449.



Parnaſsia palustris.

226

450.

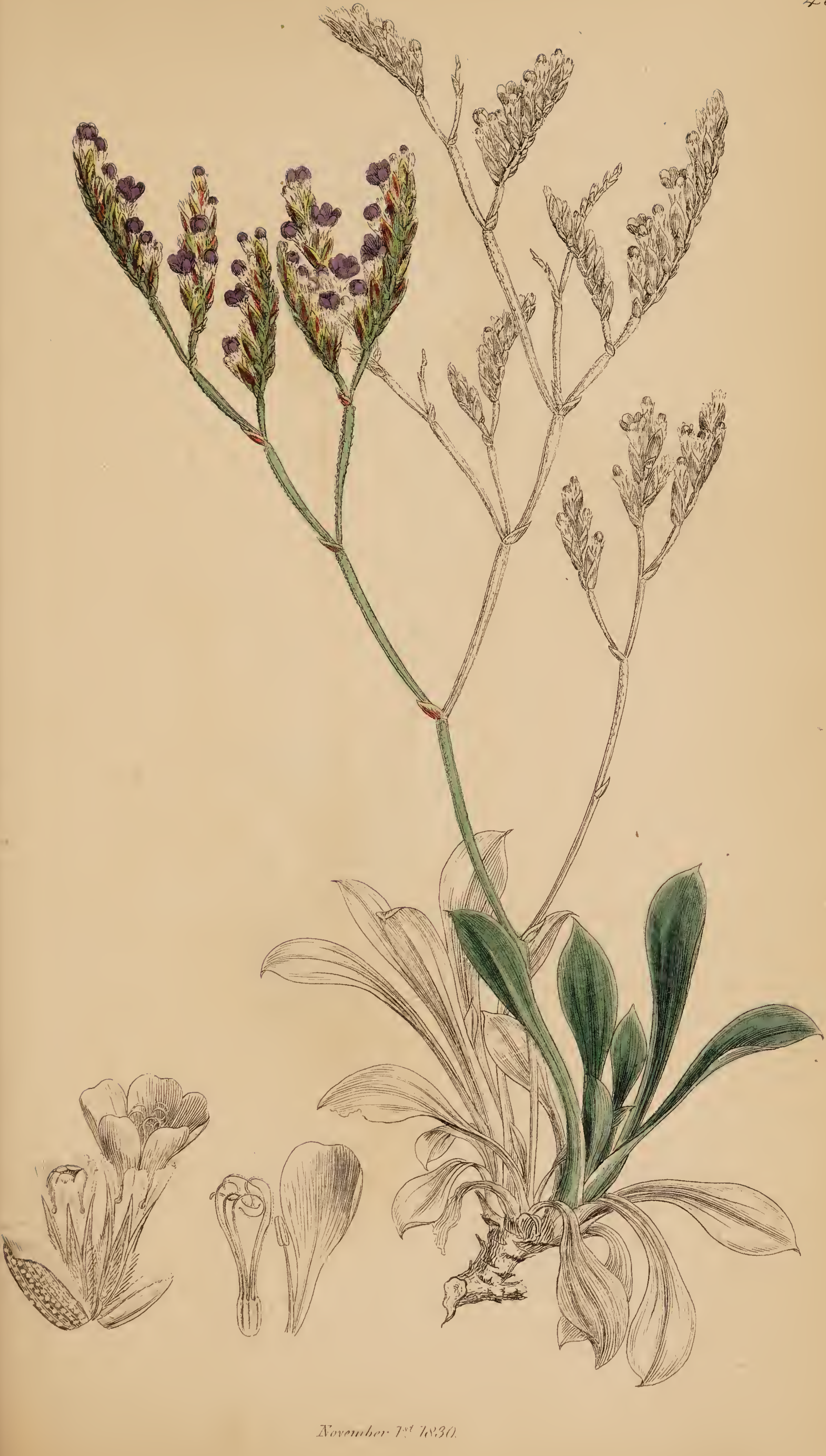


Armeria maritima.

[illegible]

2663.

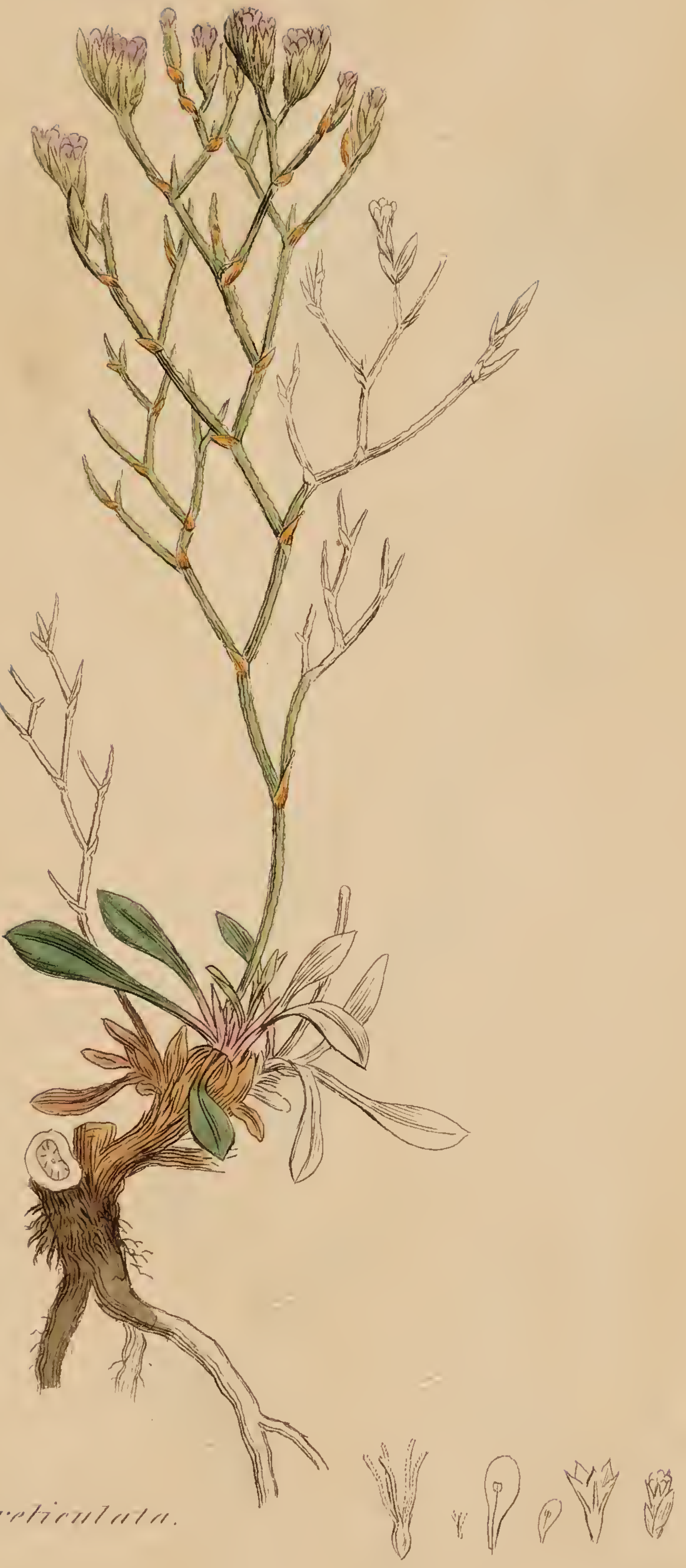
451*



November 1st 1830.

328.

452.

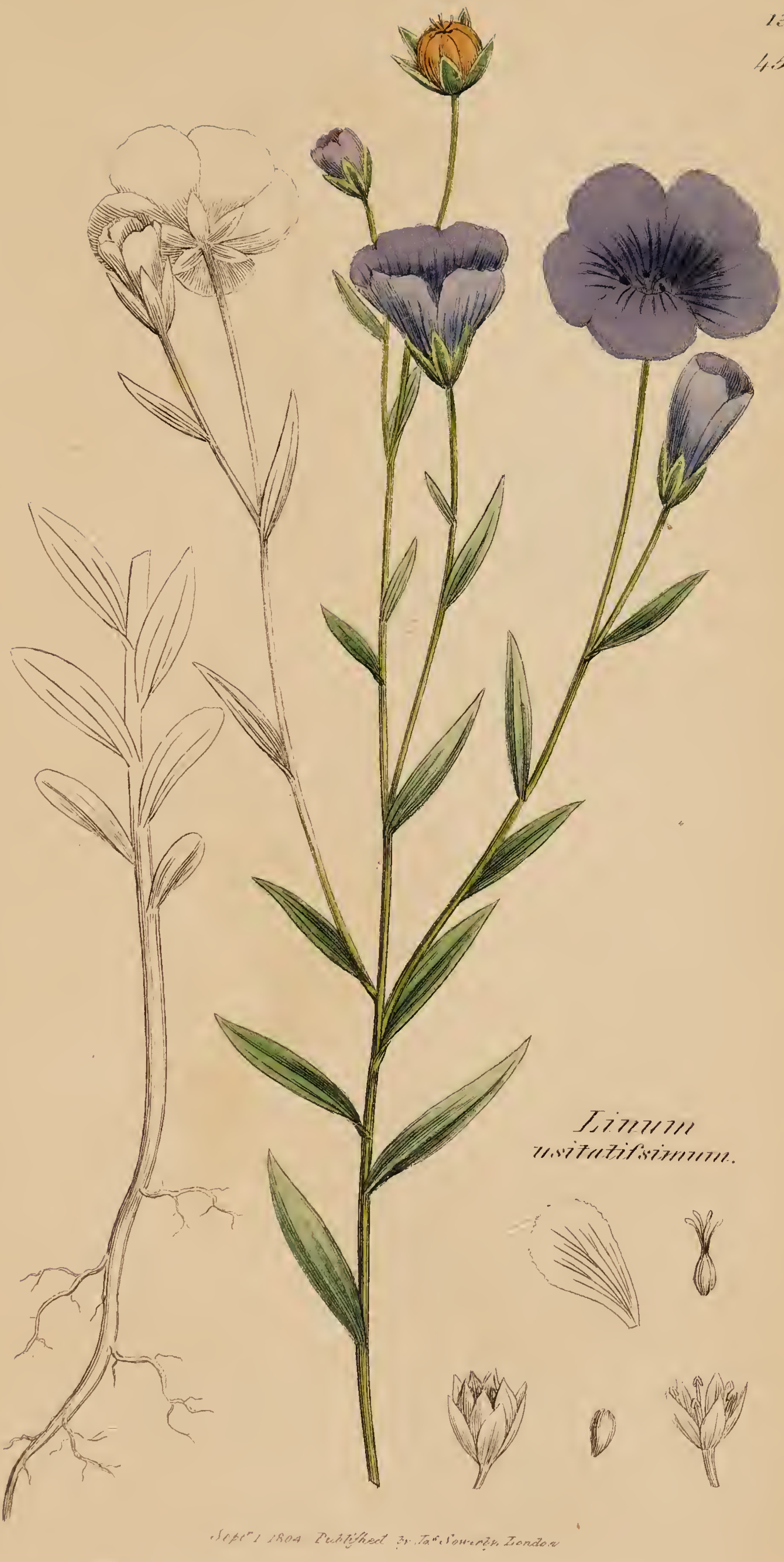


Statice reticulata.

[illegible] 795 Published by James Sowerby London

1357

453.

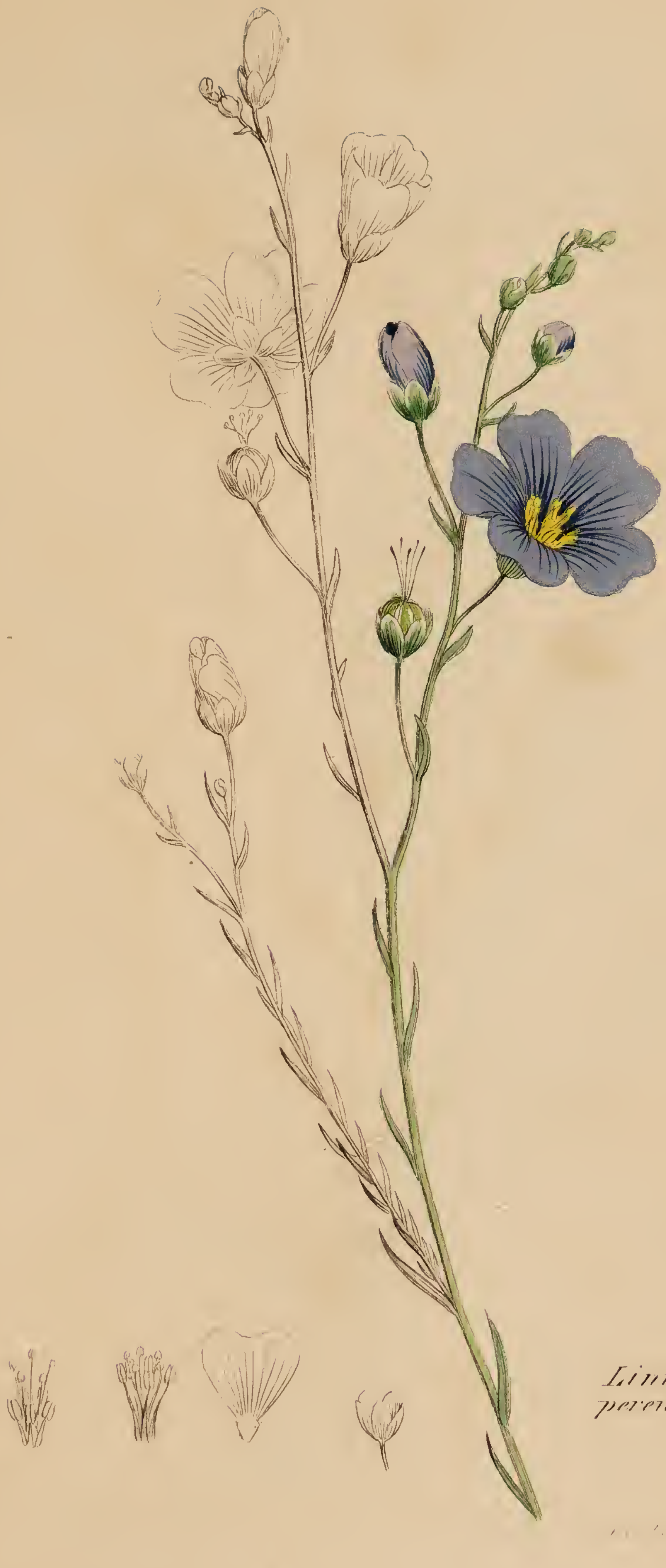


Linum usitatiſsimum.

Septr 1 1804 Publiſhed by Jas Sowerby London

40

454.

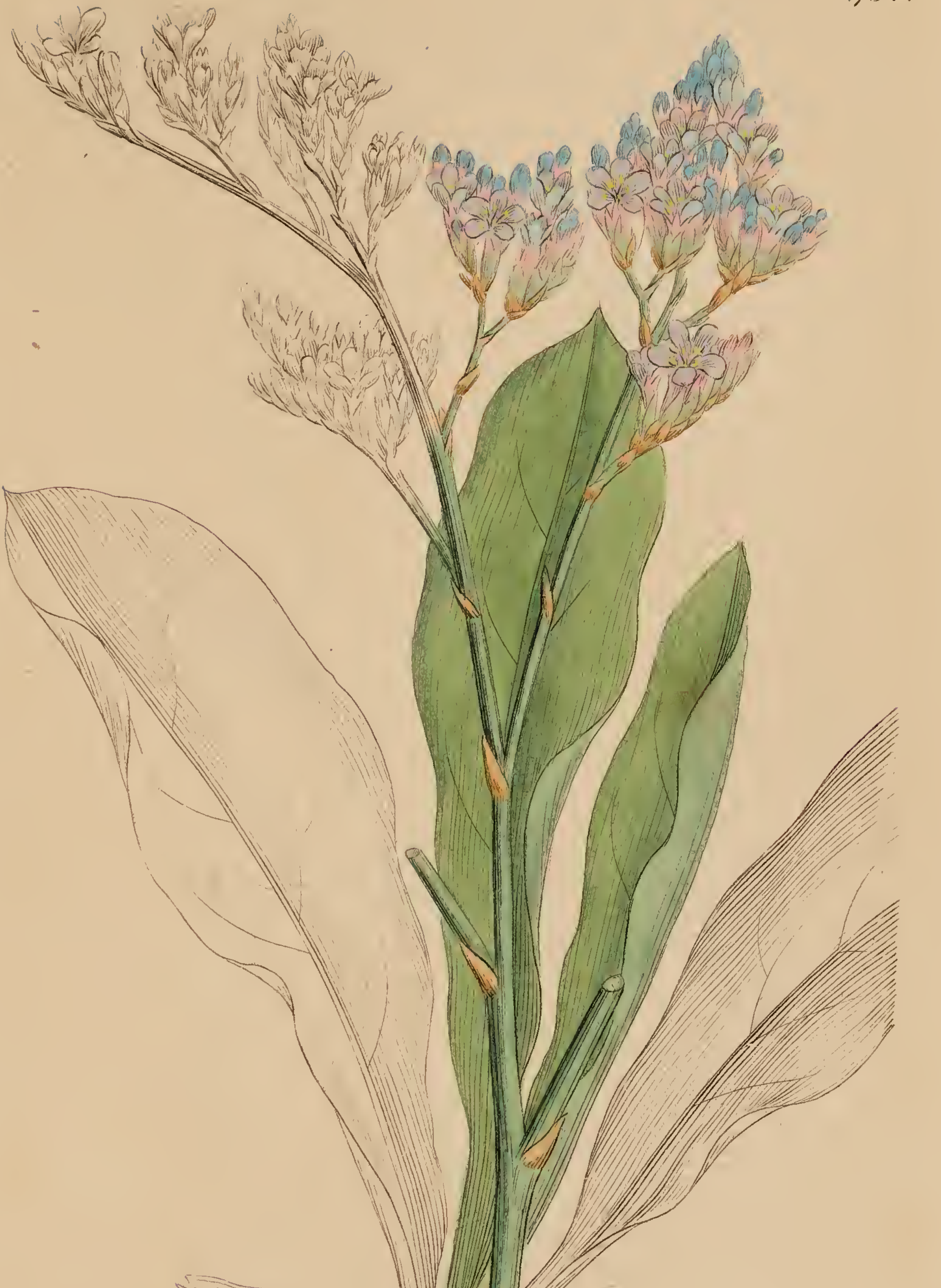


Linum perenne.

[illegible] 1792

162

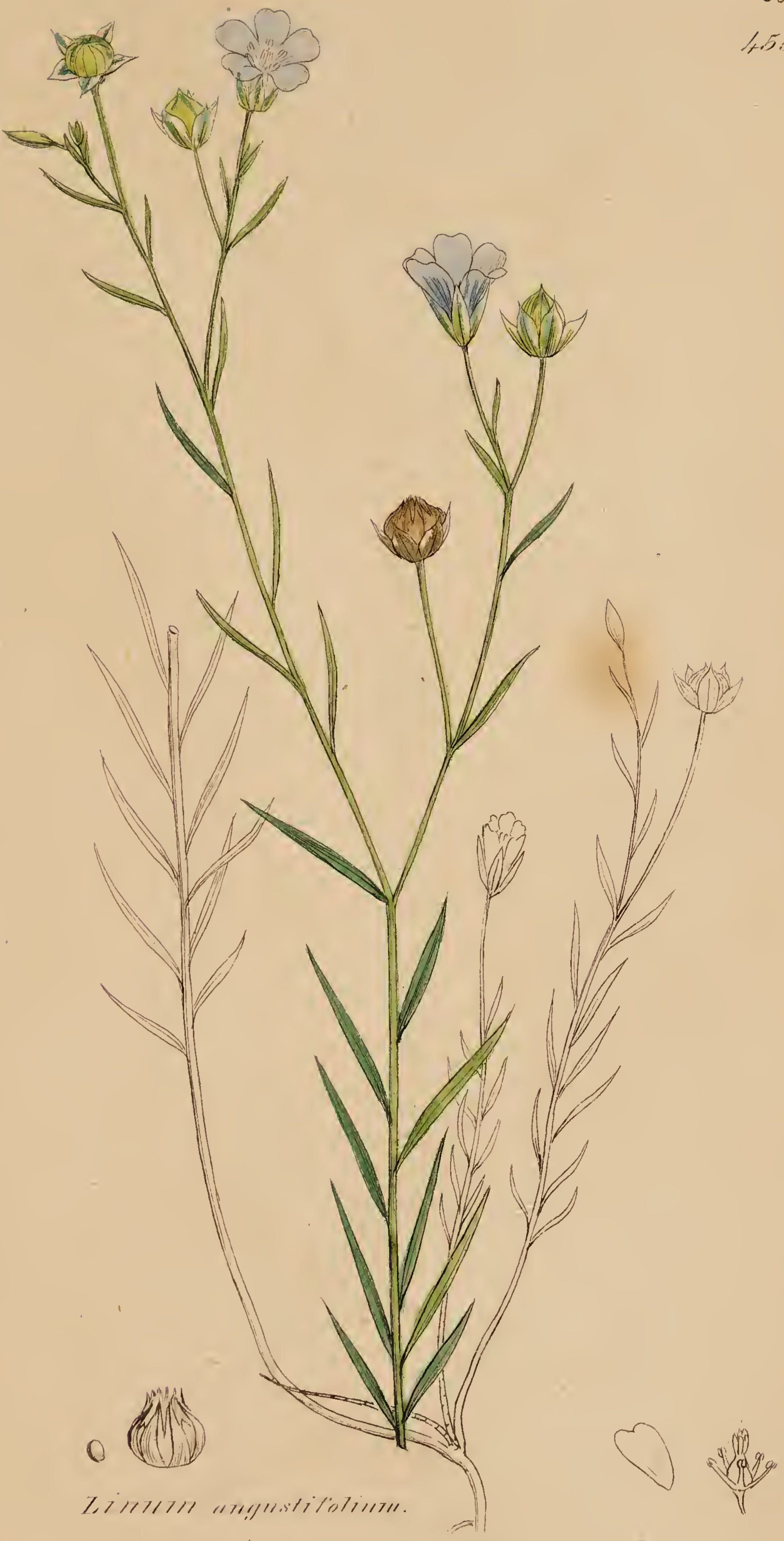
451.



Statice Limonium.

381.

455.

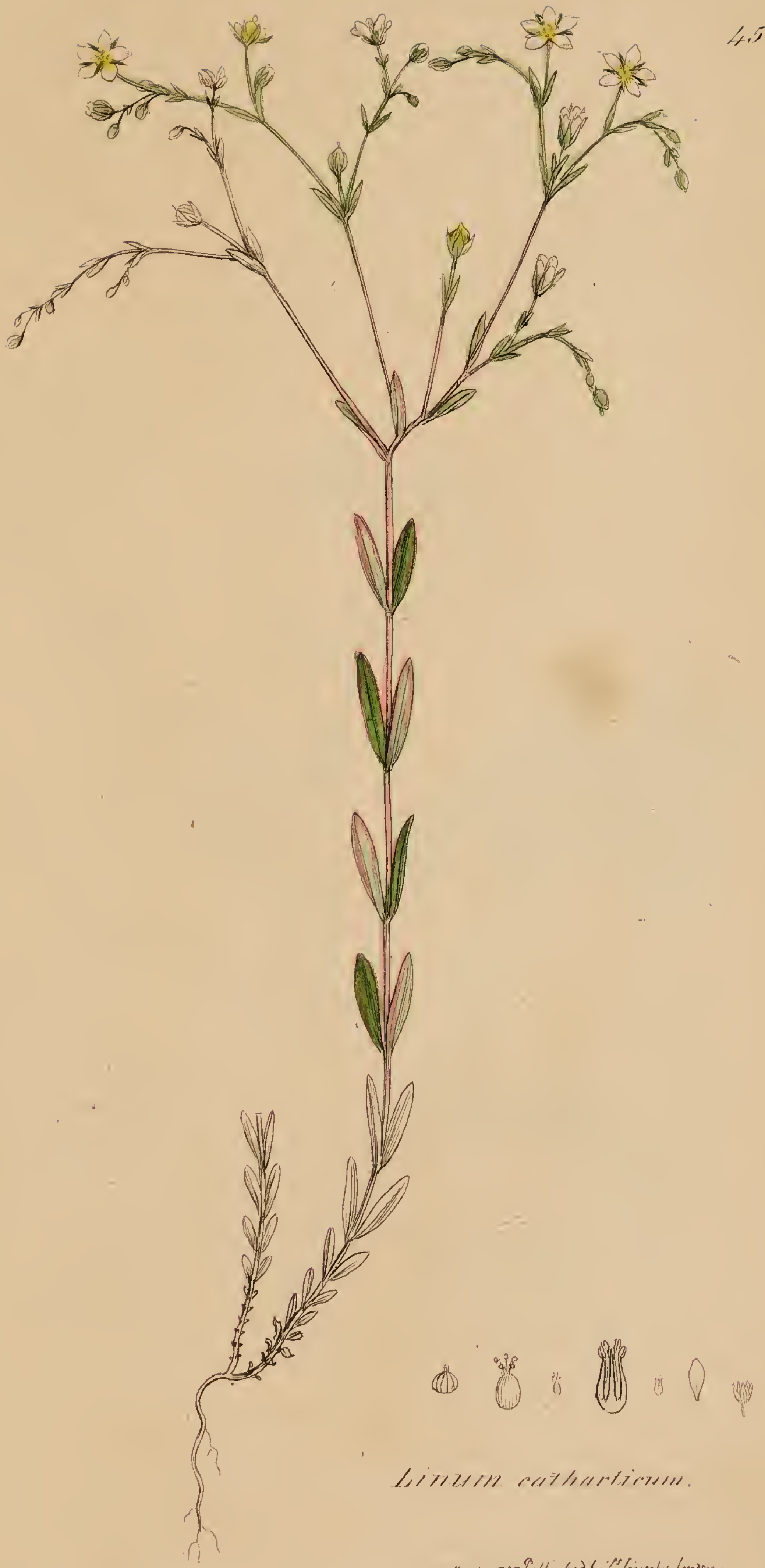


Linum angustifolium.

[illegible] 1 1797 Publish'd by J^s Sowerby Lond.

382

456.

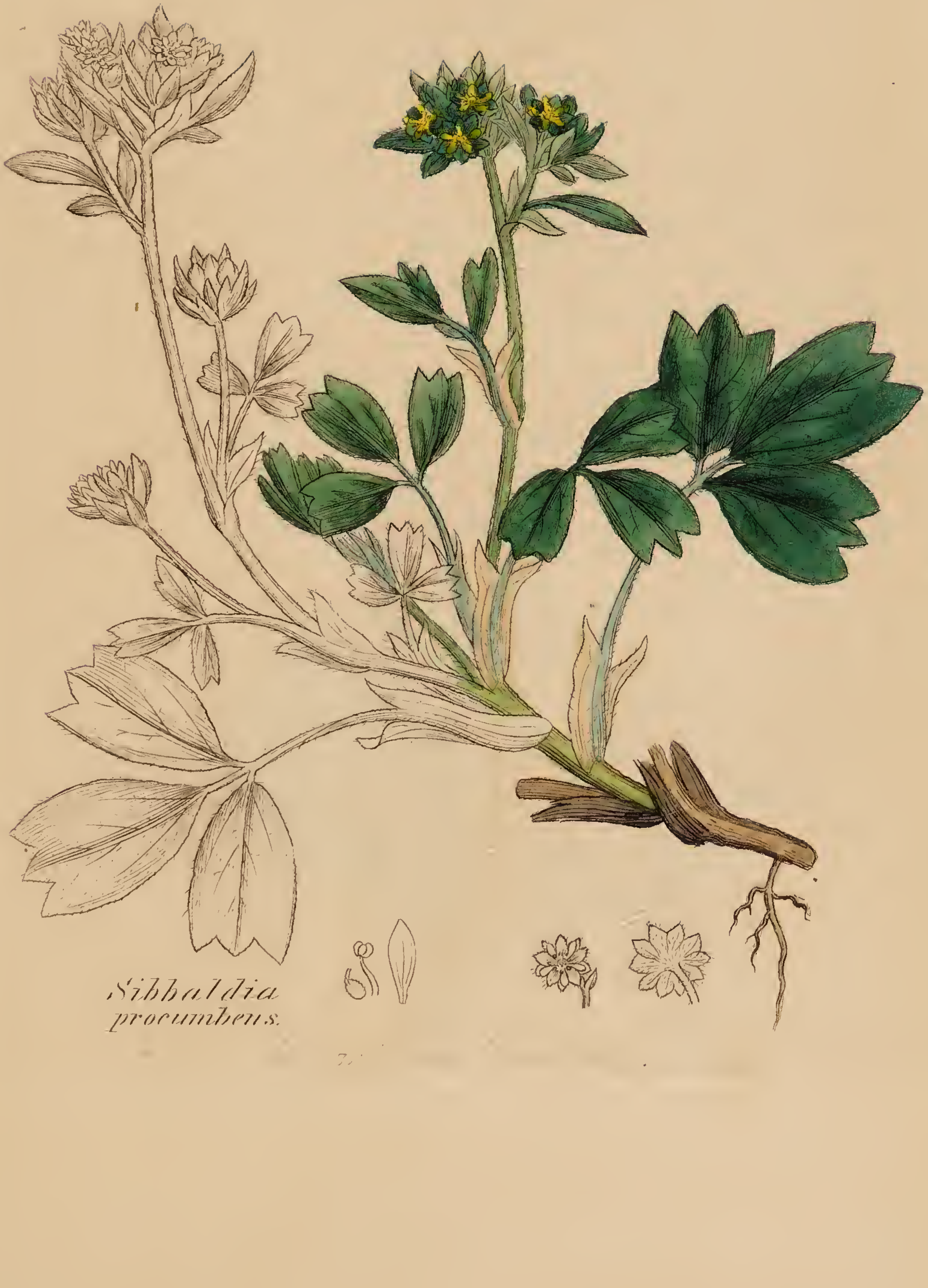


Linum catharticum.

March 1. 1797 Published by Js. Sowerby London.

897

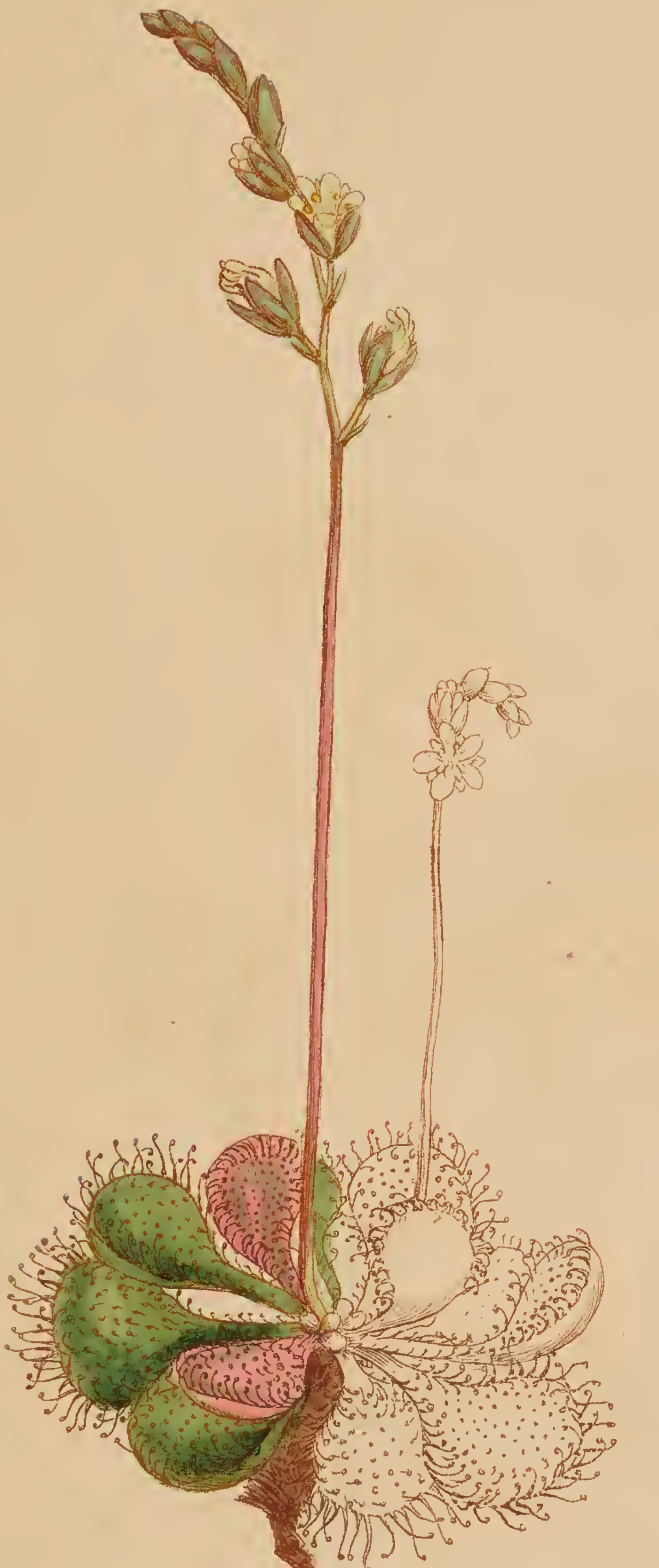
457.



Sibbaldia procumbens.

867

458.

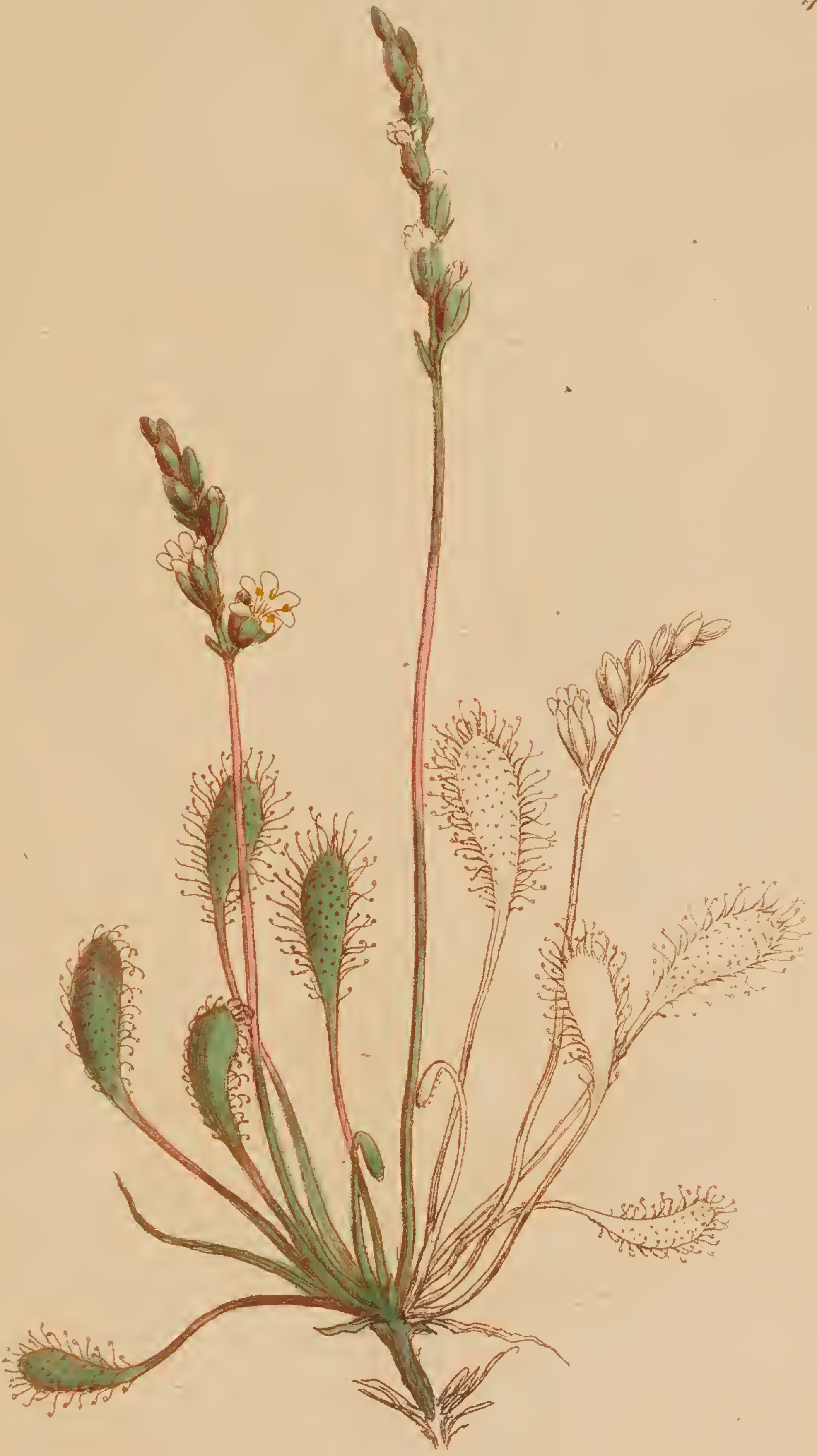


Drosera rotundifolia.

April 1. 1801. Publiſhed by Jas. Sowerby Lon

868

4.5.7.

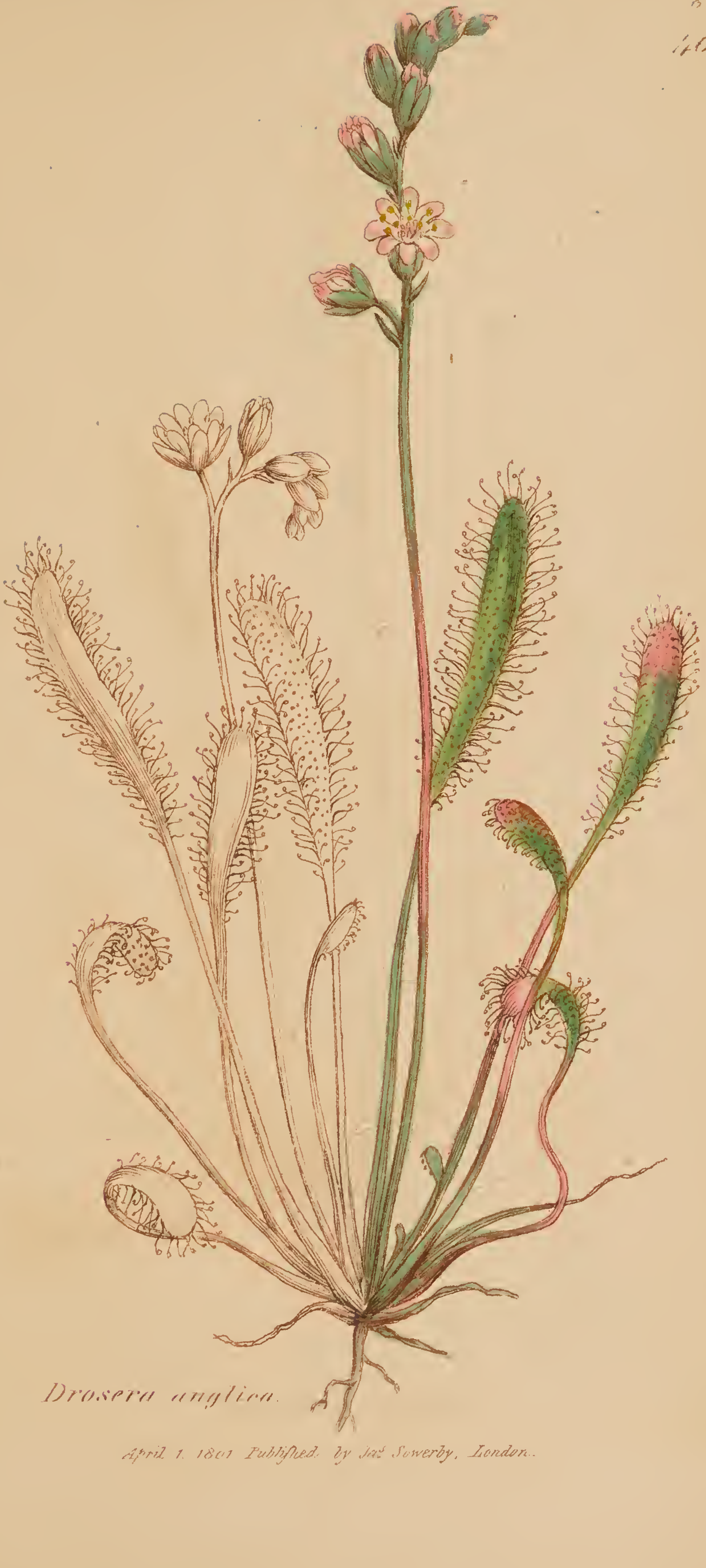


Drosera longifolia.

April 1 1801 Published by Jas. Sowerby London.

869

460.

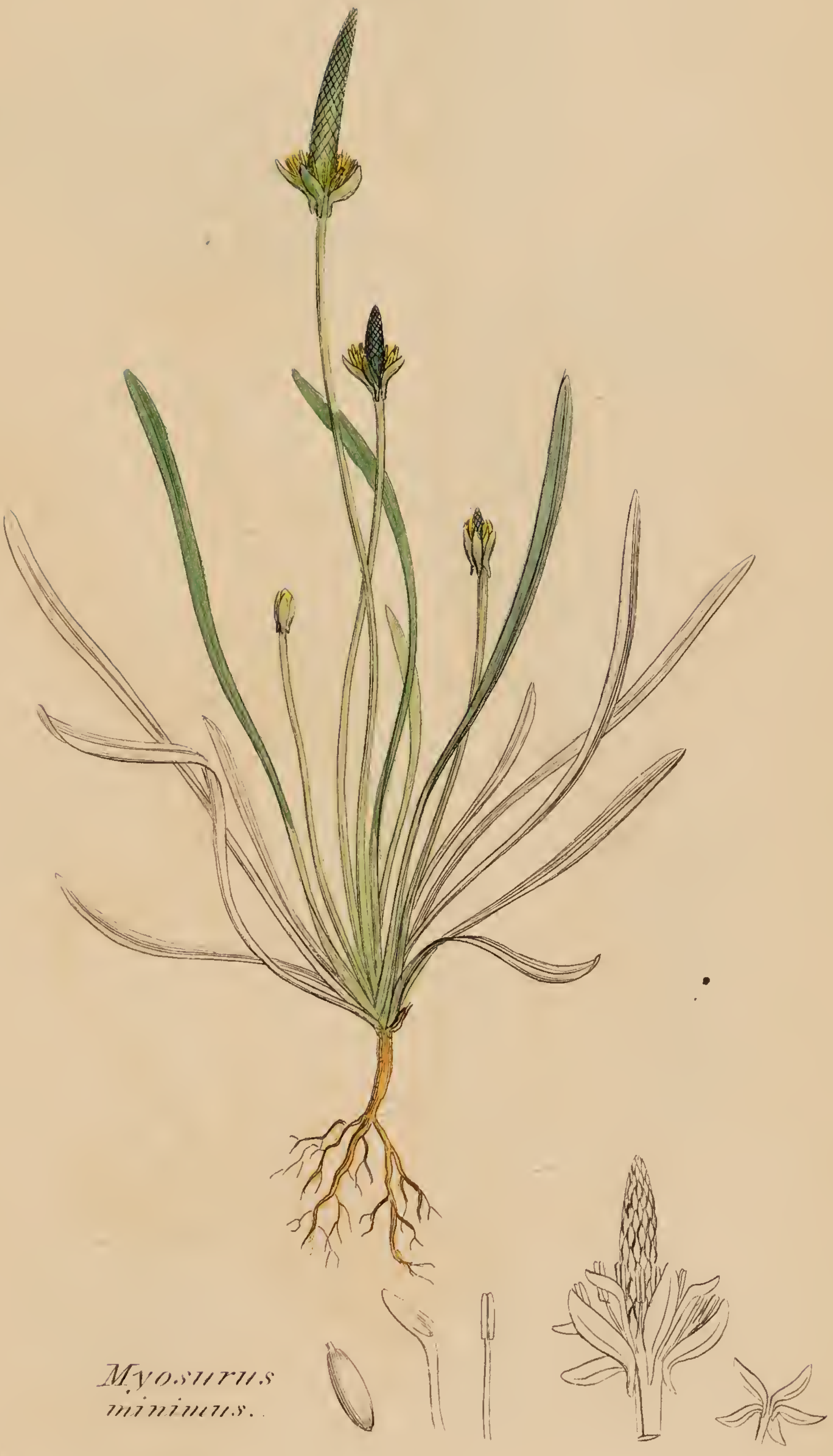


Drosera anglica.

April 1. 1801 Published by Jas. Sowerby, London.

435

461.

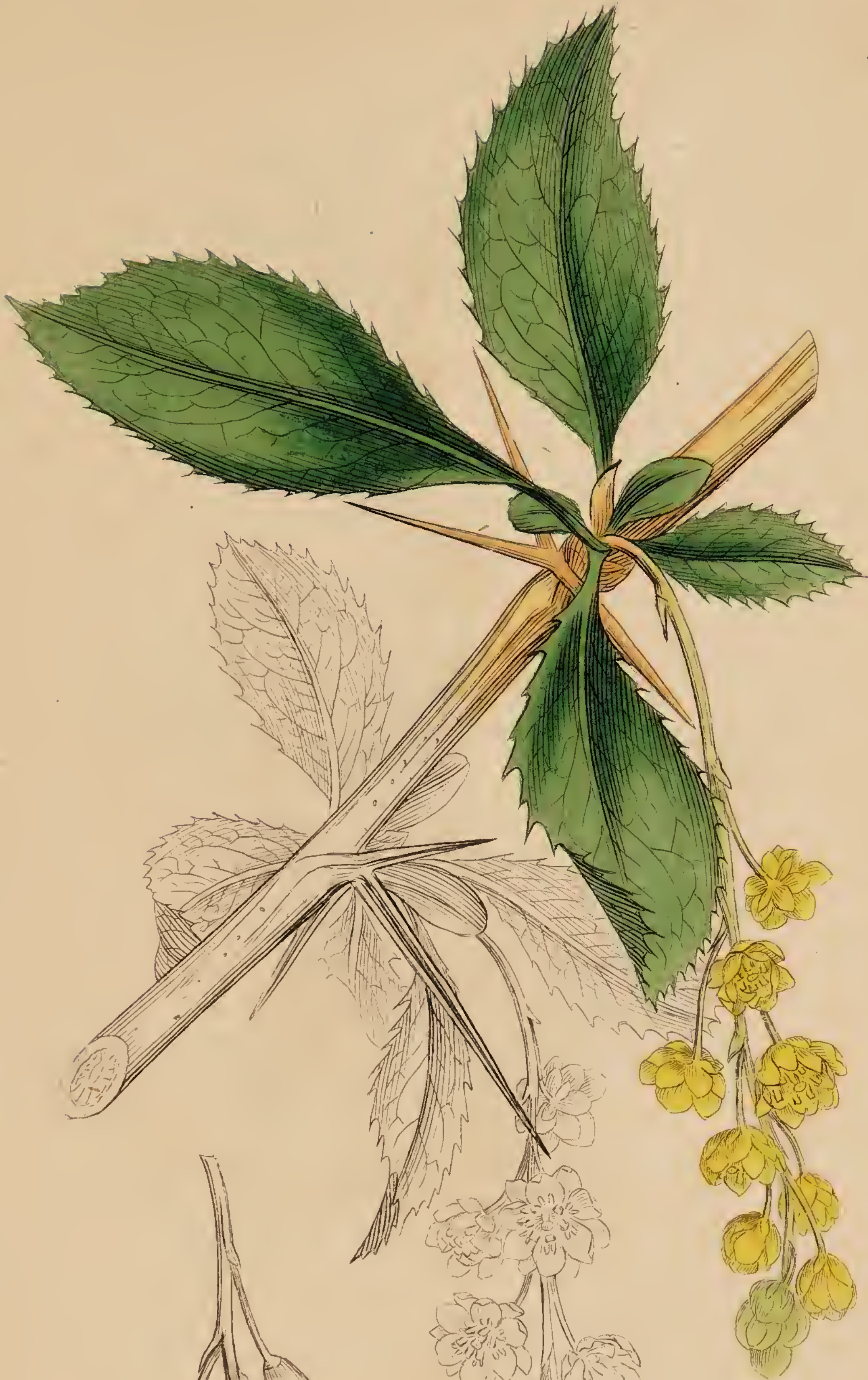


Myosurus
minimus.

[illegible] Published by Jn. Sowerby London

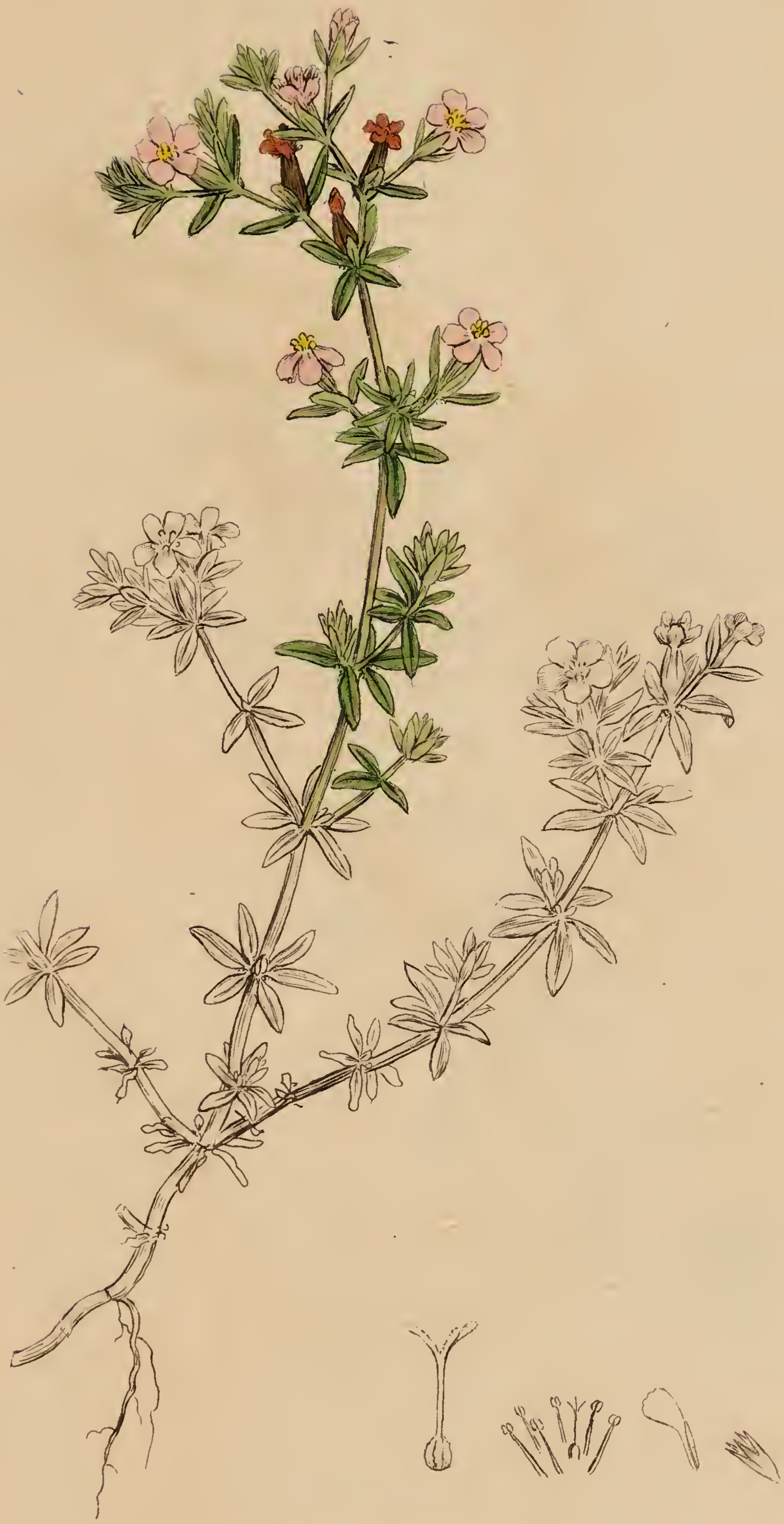
49

462.



Berberis vulgaris.

463.



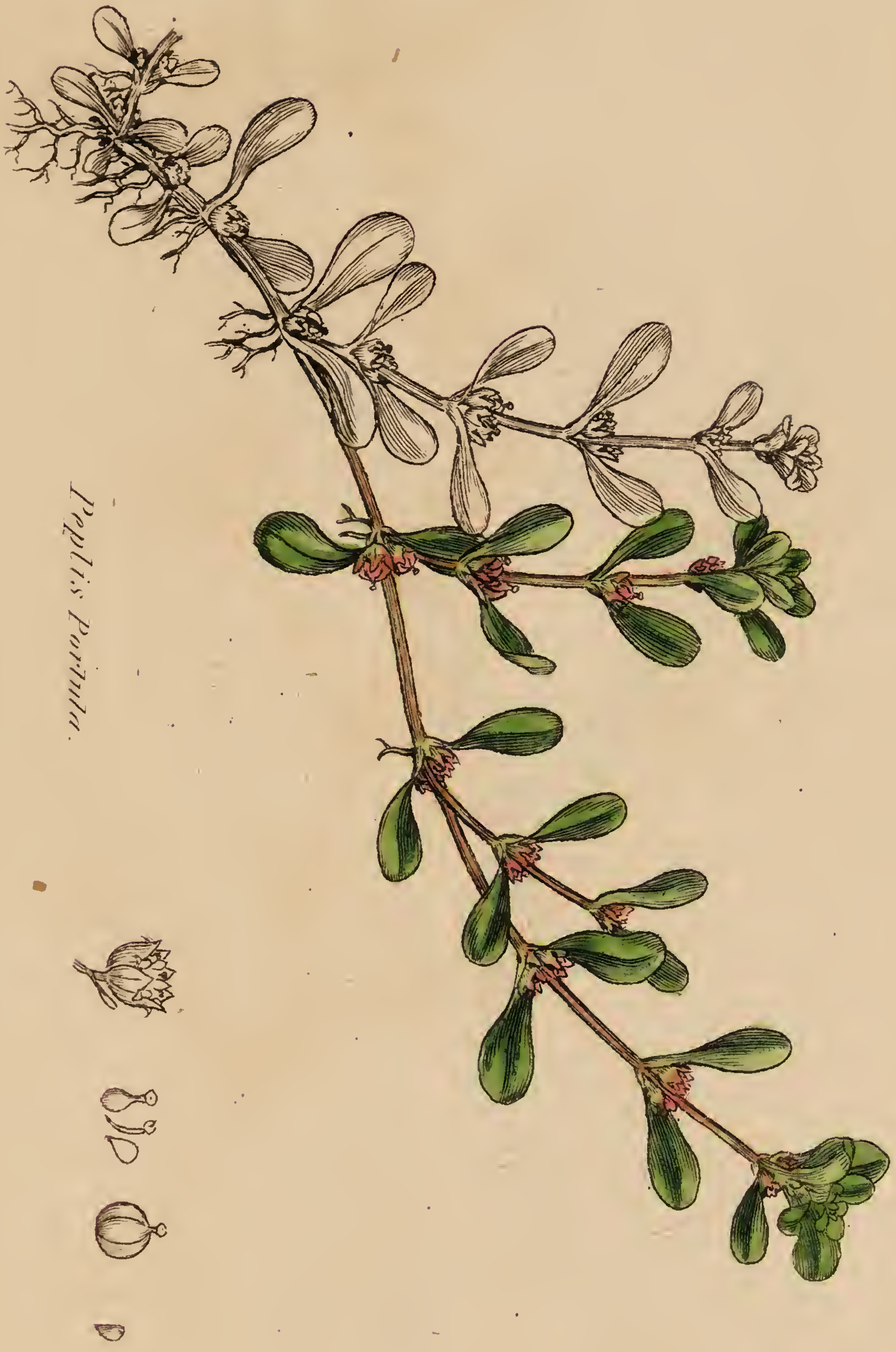
Frankenia lævis.

J. Sowerby del^{t} Oct^{r} 1 1794

1211

465.

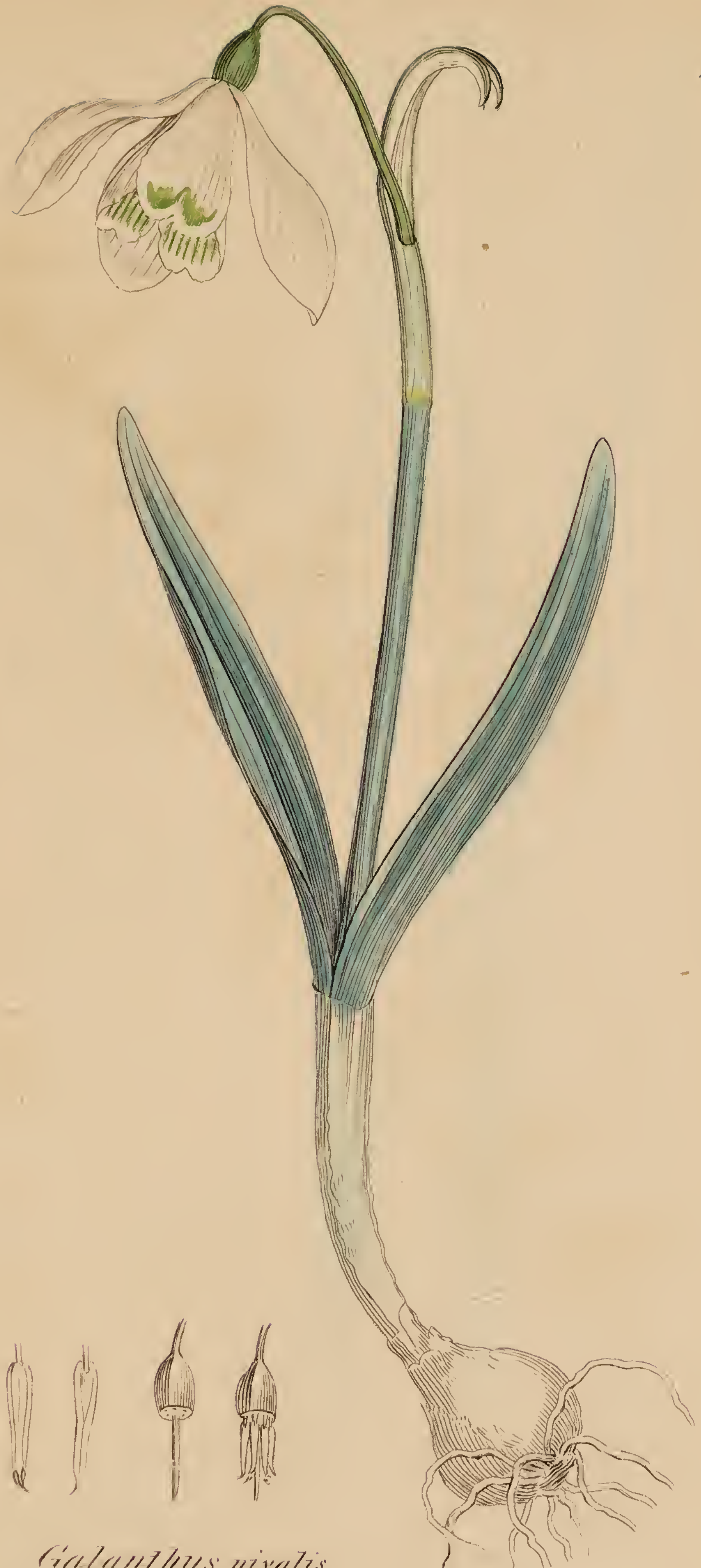
Peplis Portula.



Septr 1. 1803 Publiſhed by Jas. Sowerby, London.

19

466.

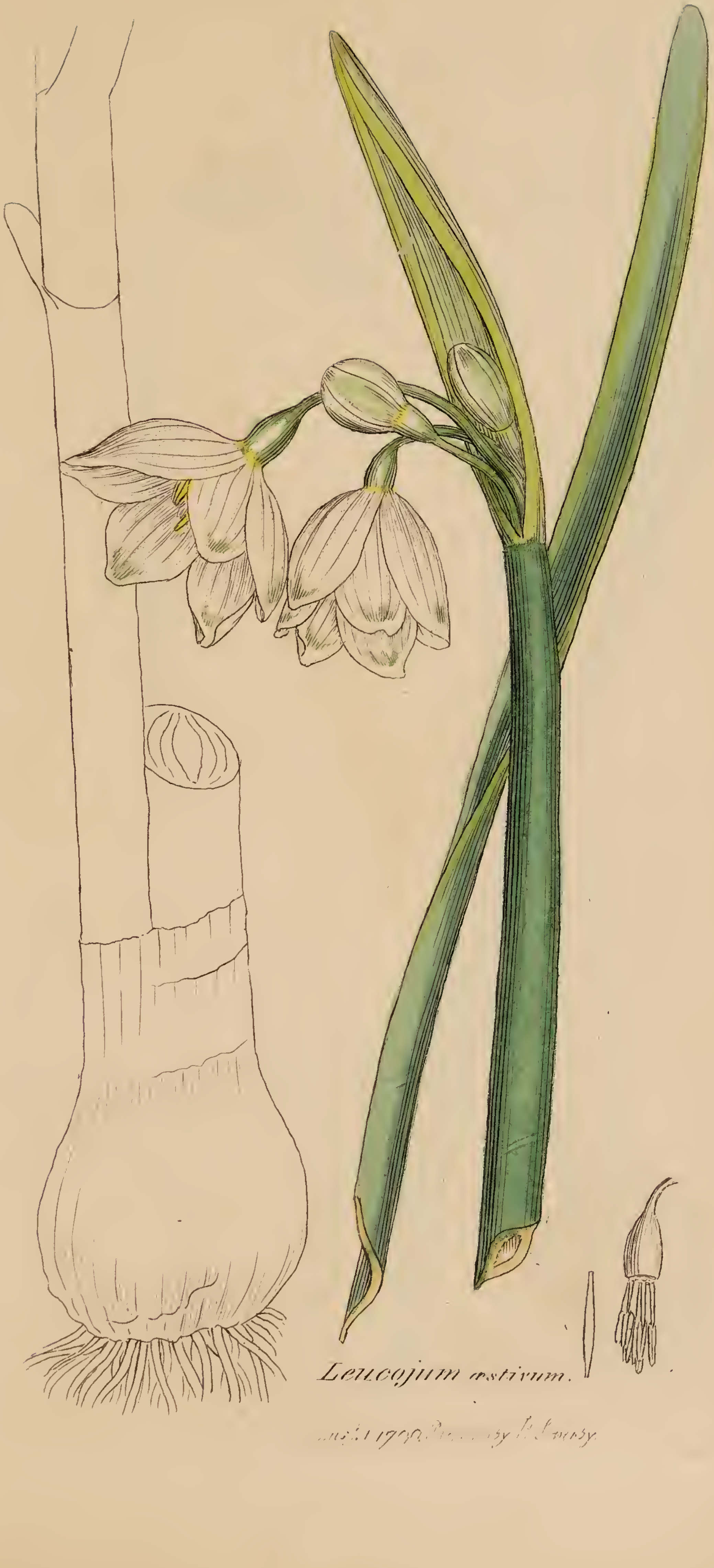


Galanthus nivalis.

J. Sowerby del. Jun. 1 1791

621

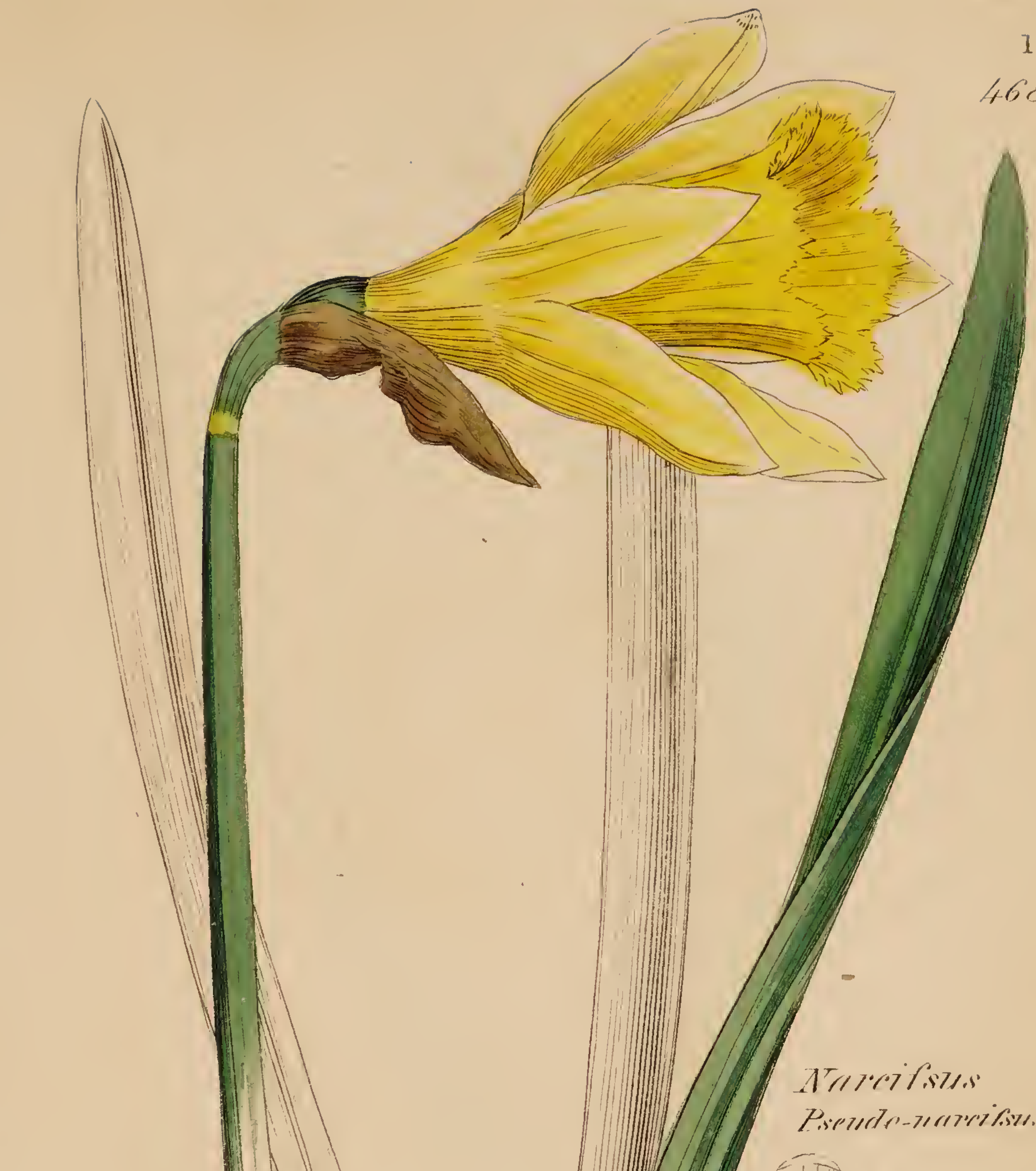
467.



Leucojum æstivum.

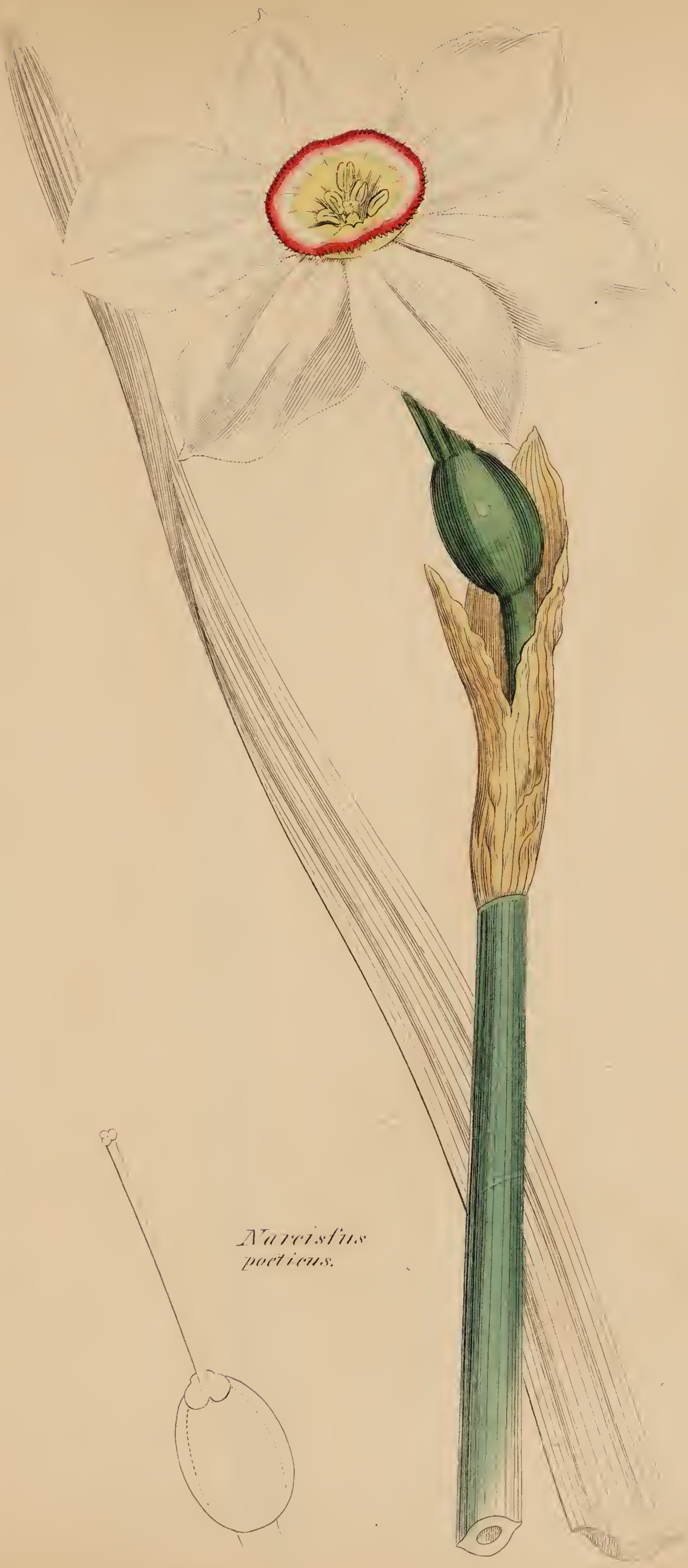
Aug: 1 1798. Pub. by J. Sowerby

17
468.



Narciſsus
Pseudo-narciſsus.

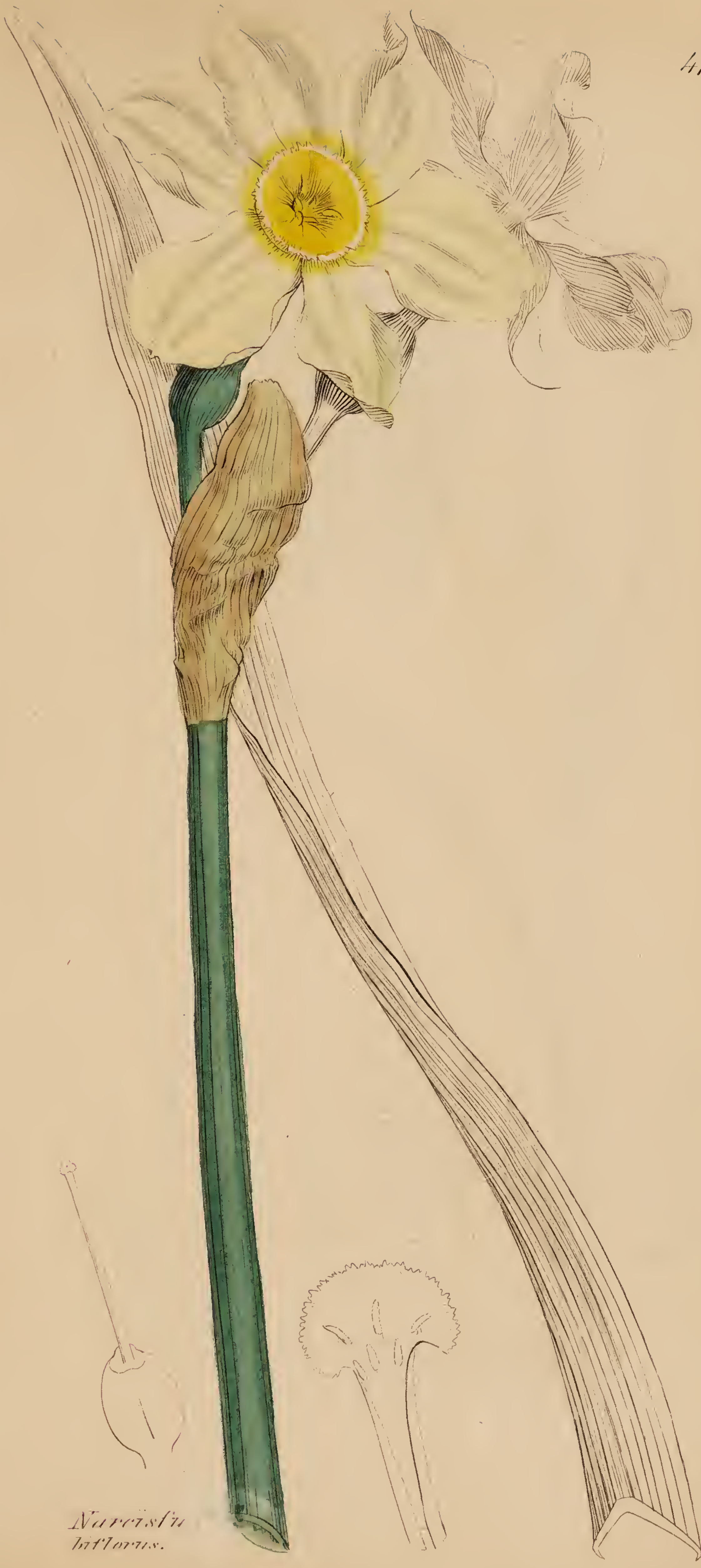
J. Sowerby del. May 1. 1791



Narciſsus poeticus.

270.

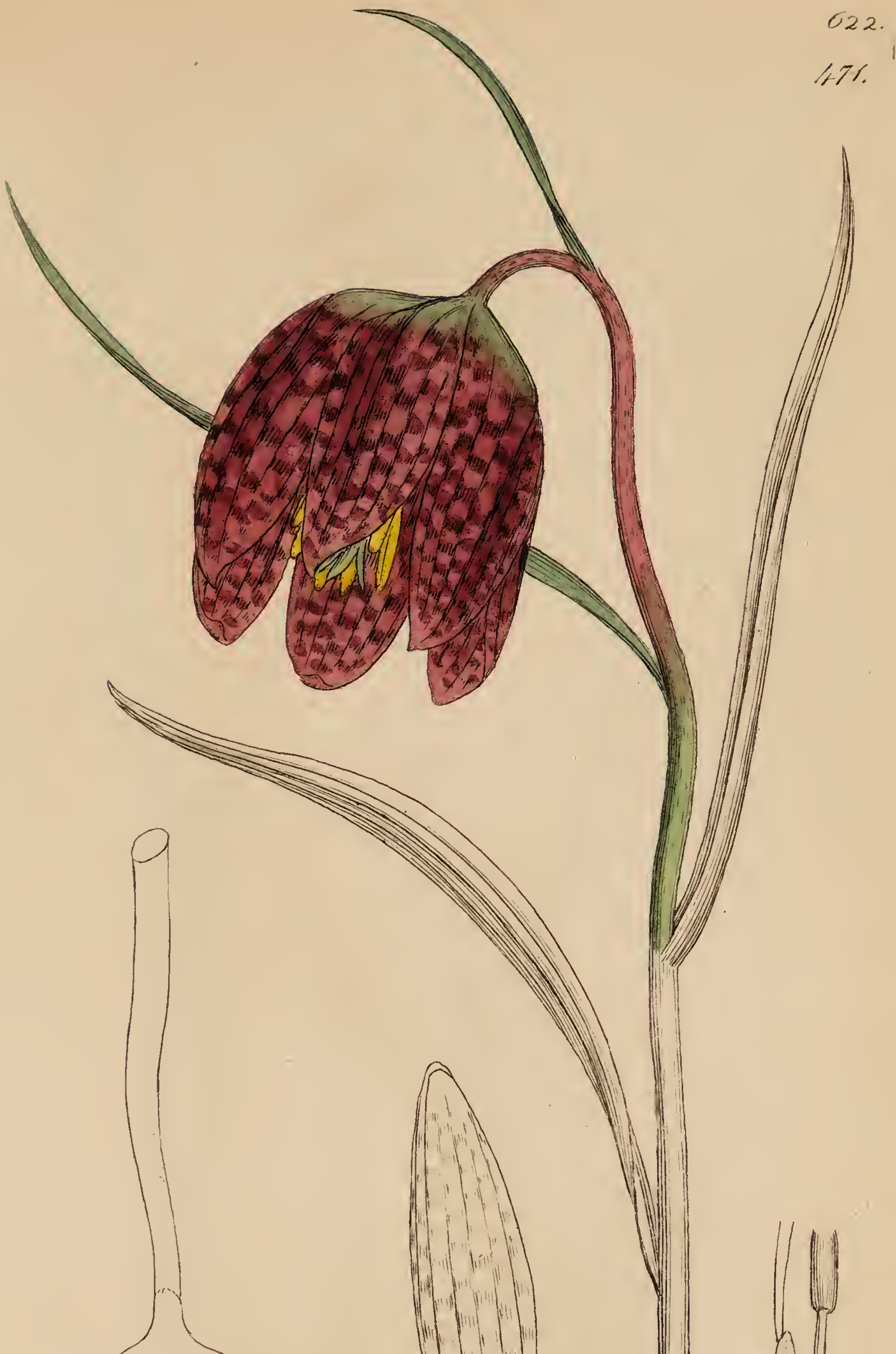
470.



Narcissus biflorus.

622.

471.

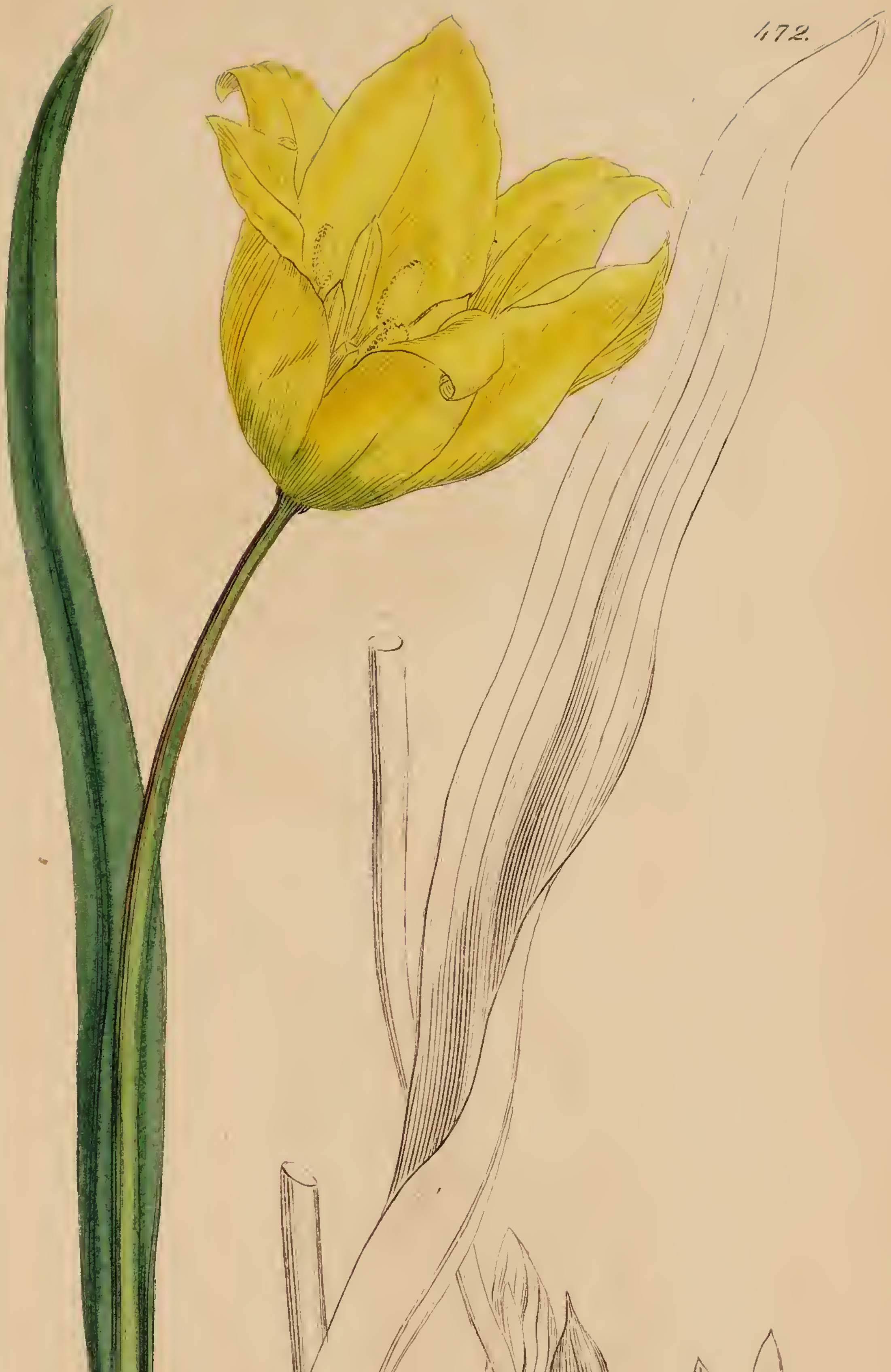


Fritillaria Meleagris.

Augst 1. 1799 Published by Jas Sowerby London

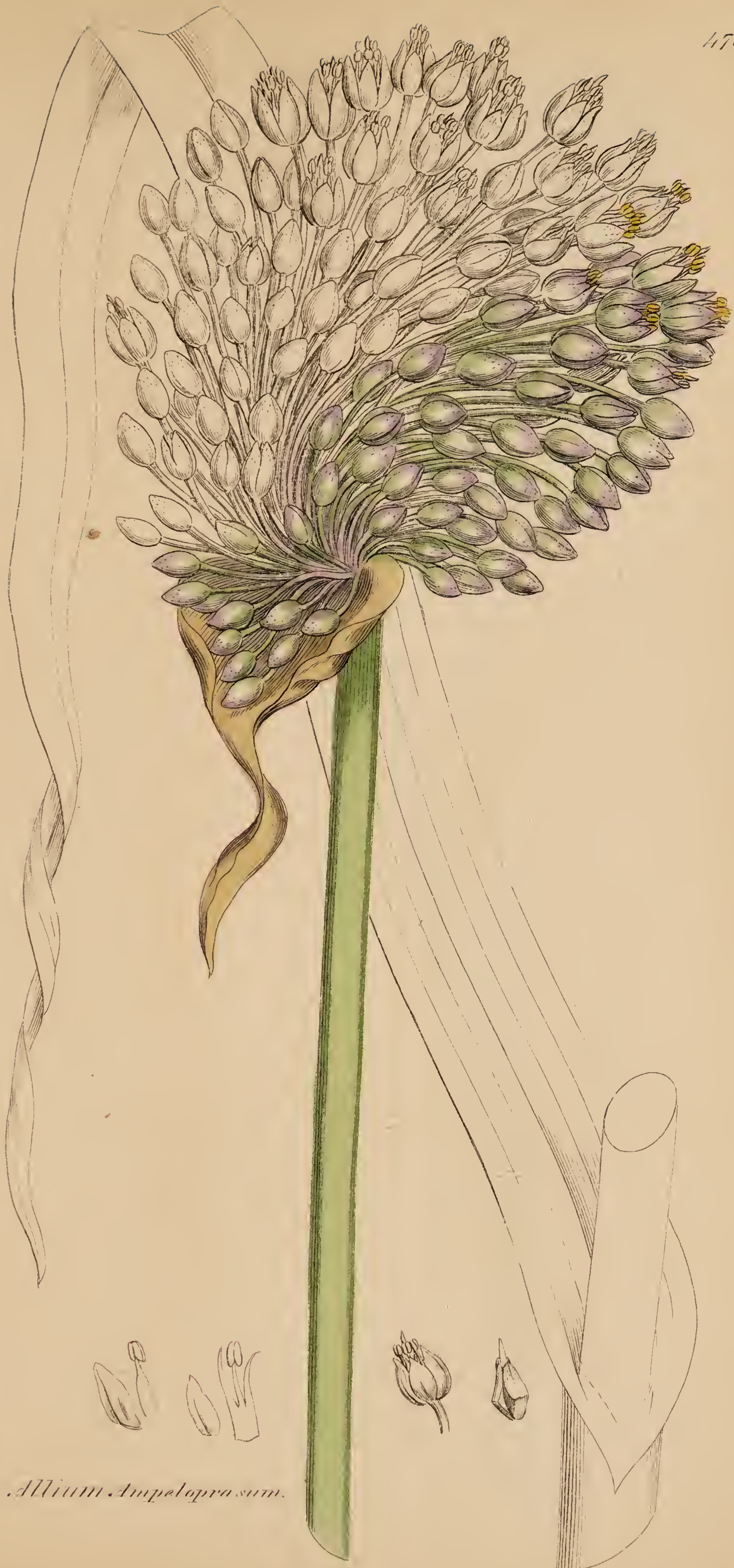
62

472.



Tulipa sylvestris.

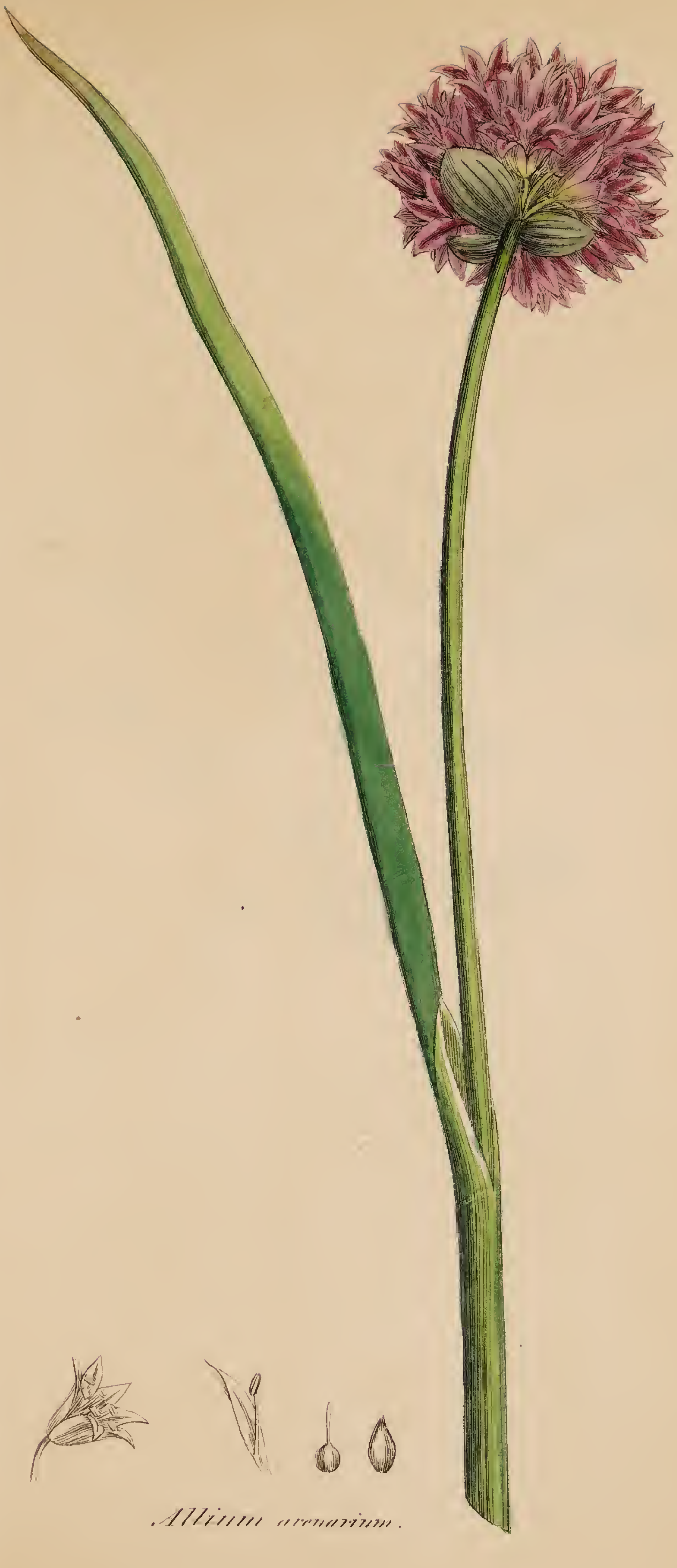
473.



Allium Ampeloprasum.

731

471

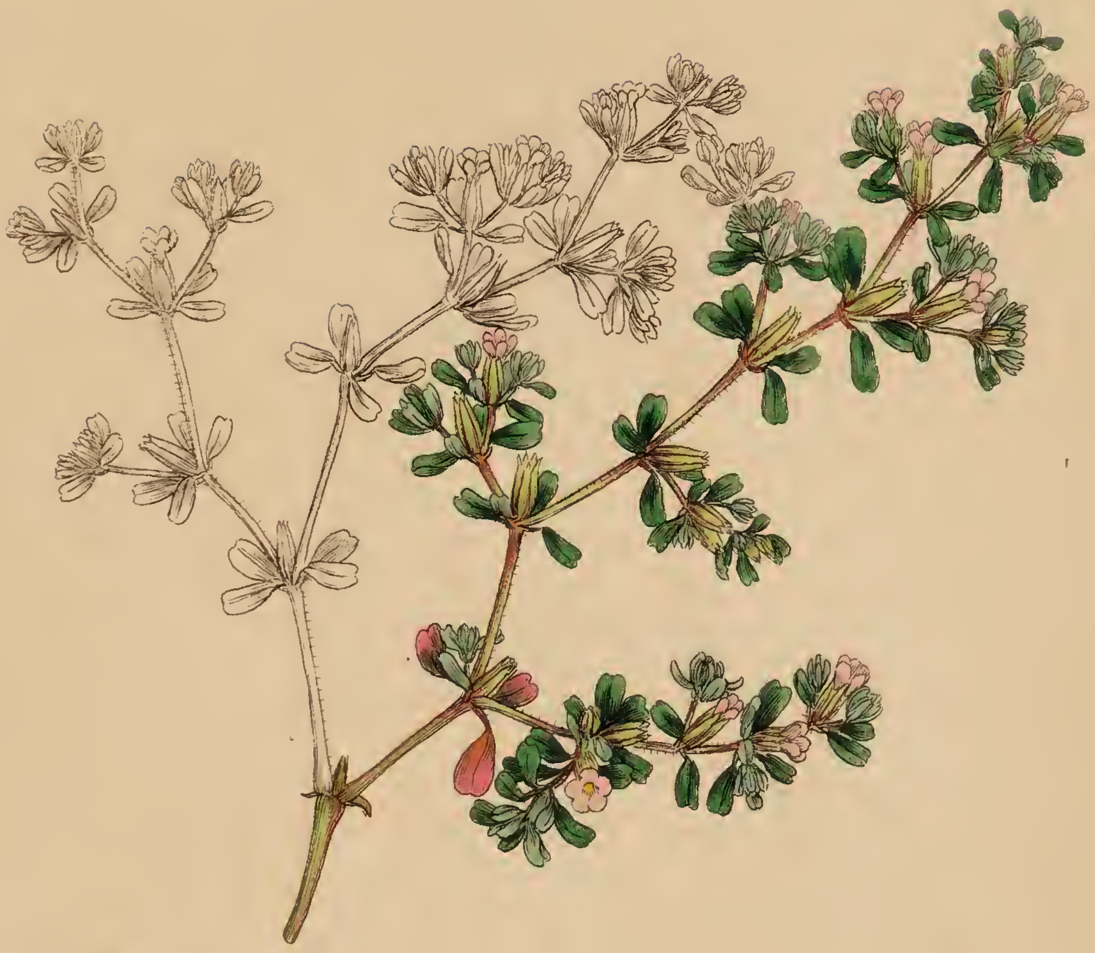


Allium arenarium.

Septr. 1. 1804 Published by Jas. Sowerby, London.

2222.

464.

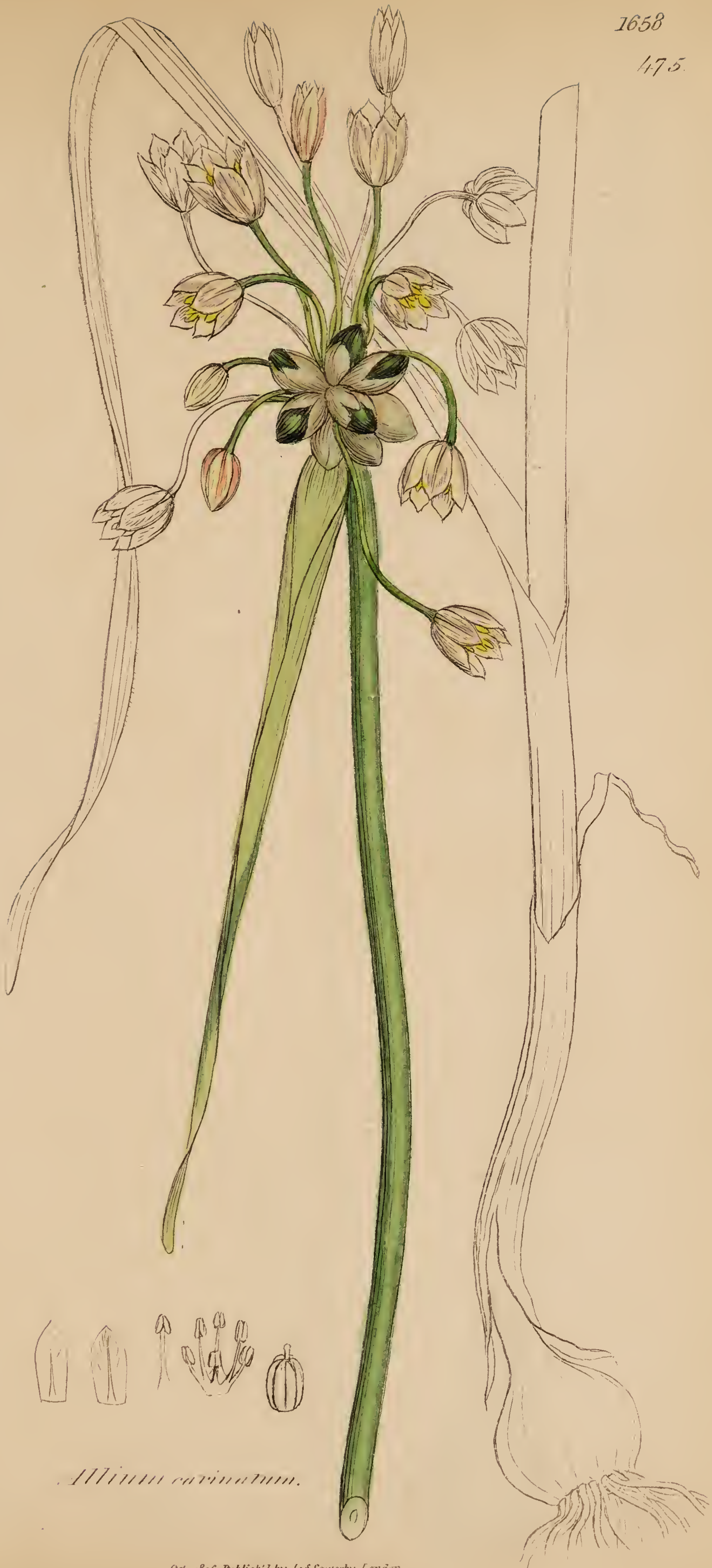


Frankenia pulverulenta.

Dec 1810 publish'd by Jas. Sowerby London.

1658

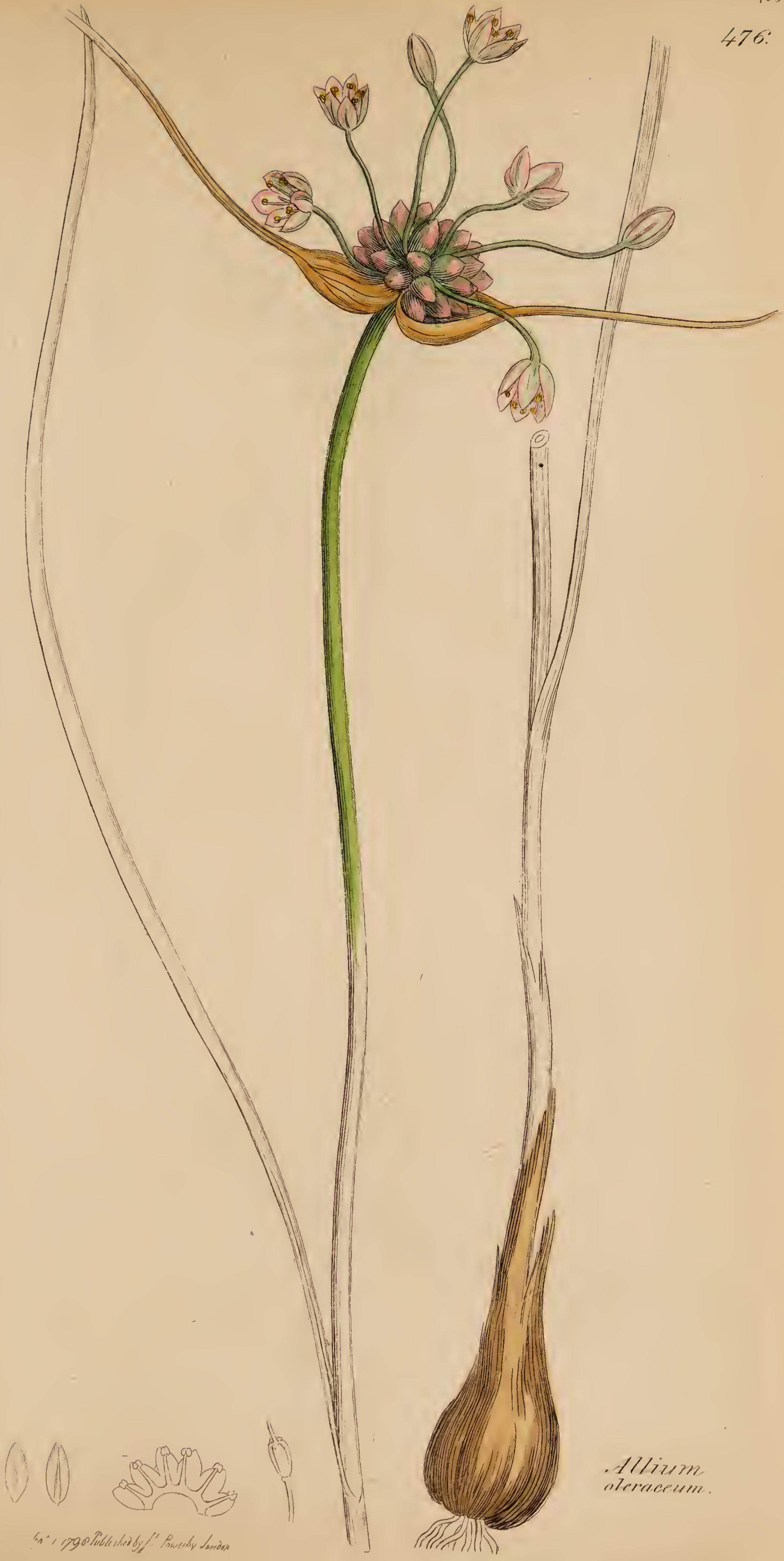
475.



Allium carinatum.

Oct.1.1806, Publish'd by Ja^s. Sowerby, London.

476.

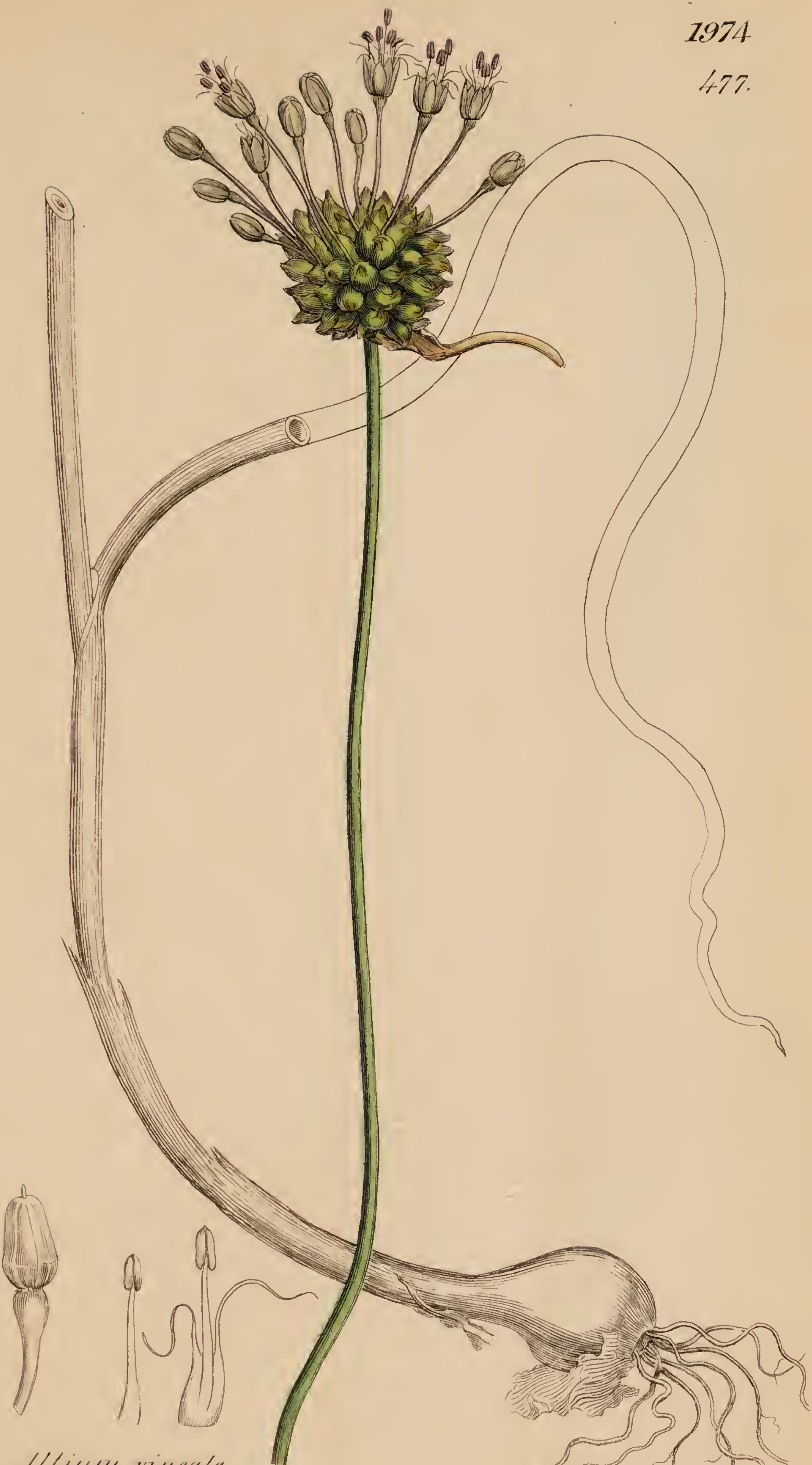


Allium
oleraceum.

Jan^y. 1 1798 Published by J^s. Sowerby London

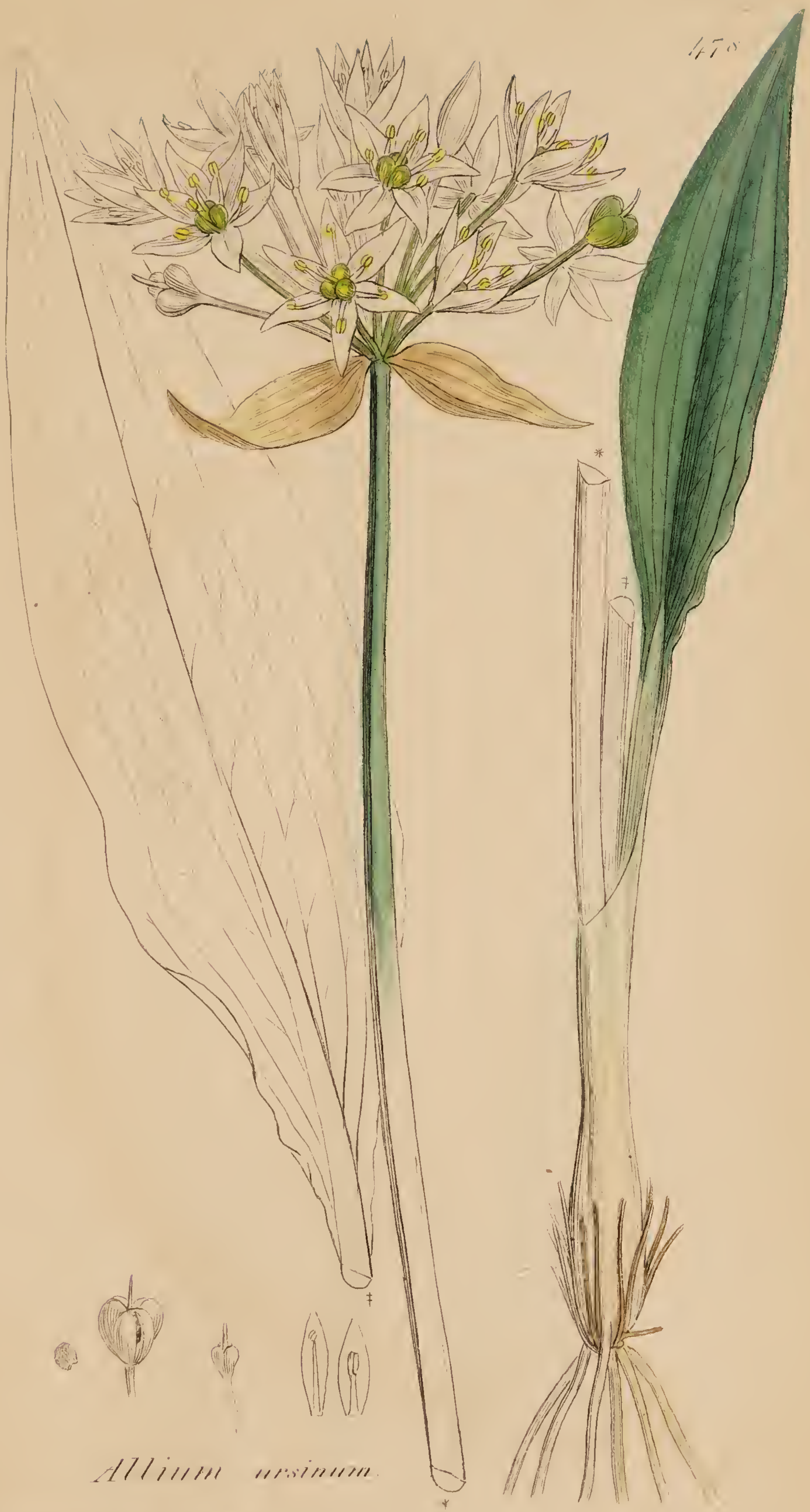
1974

477.



Allium vineale.

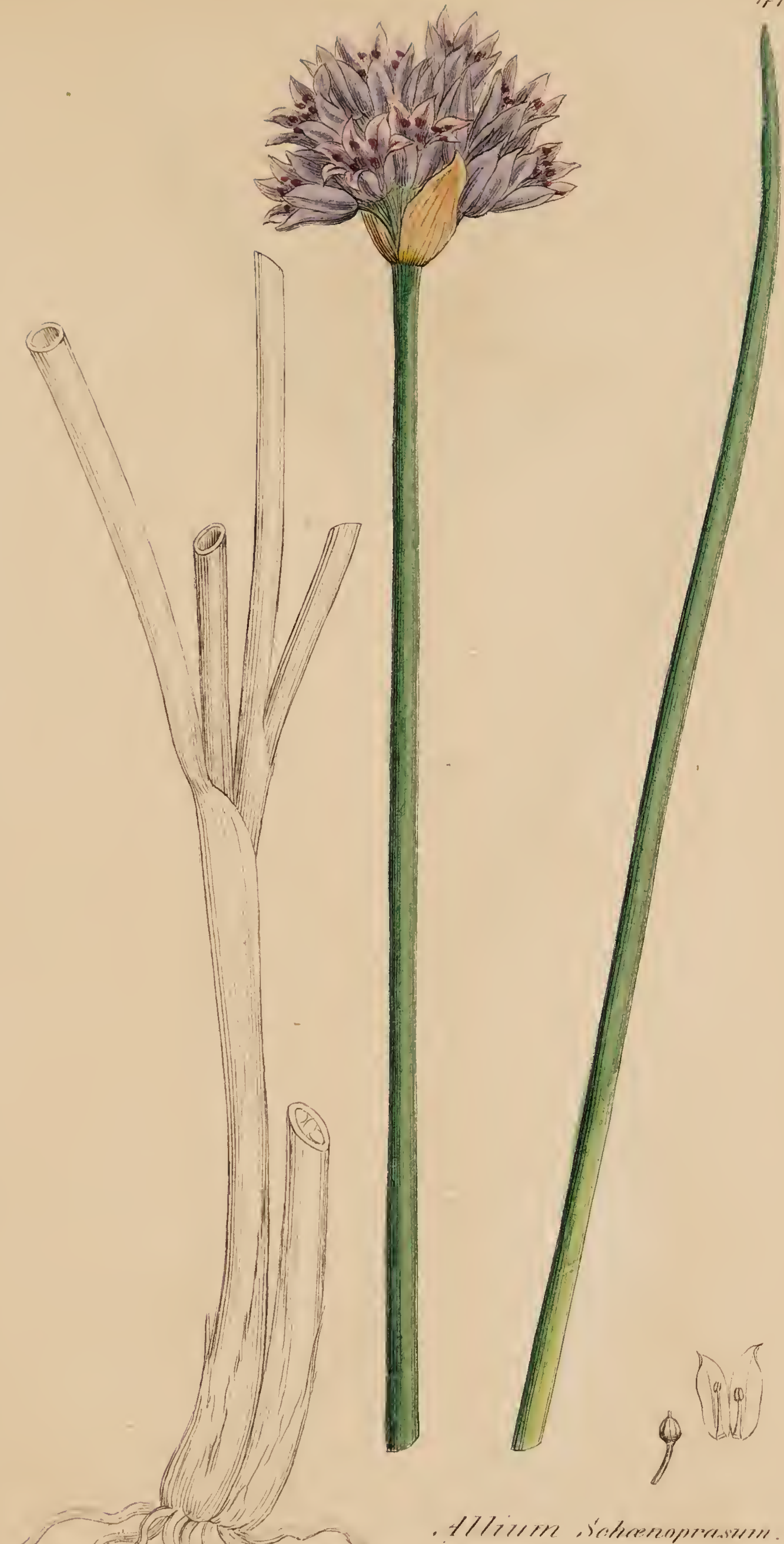
Jan. 1. 1809. Publish'd by Jas. Sowerby, London.



Allium ursinum.

2441

479.

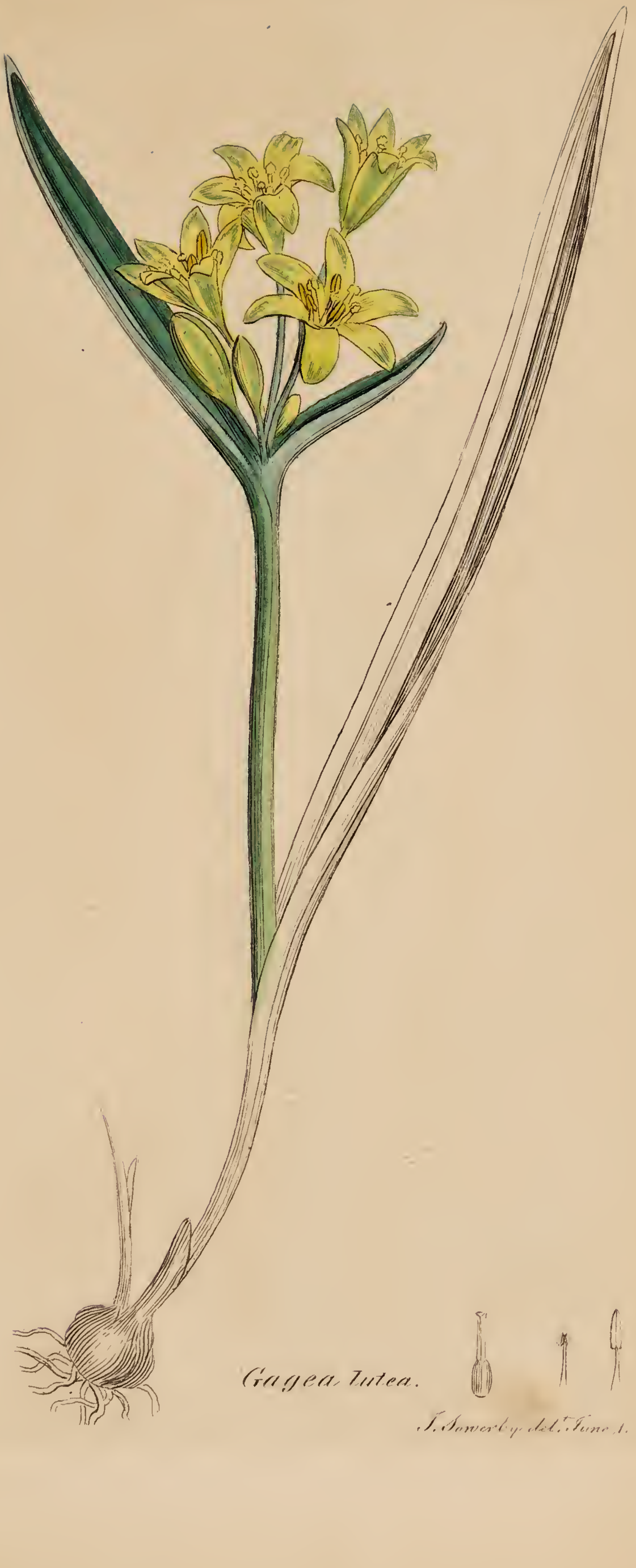


Allium Schœnoprasum.

Aug. [illegible] published by Js. Sowerby London.

21

480.

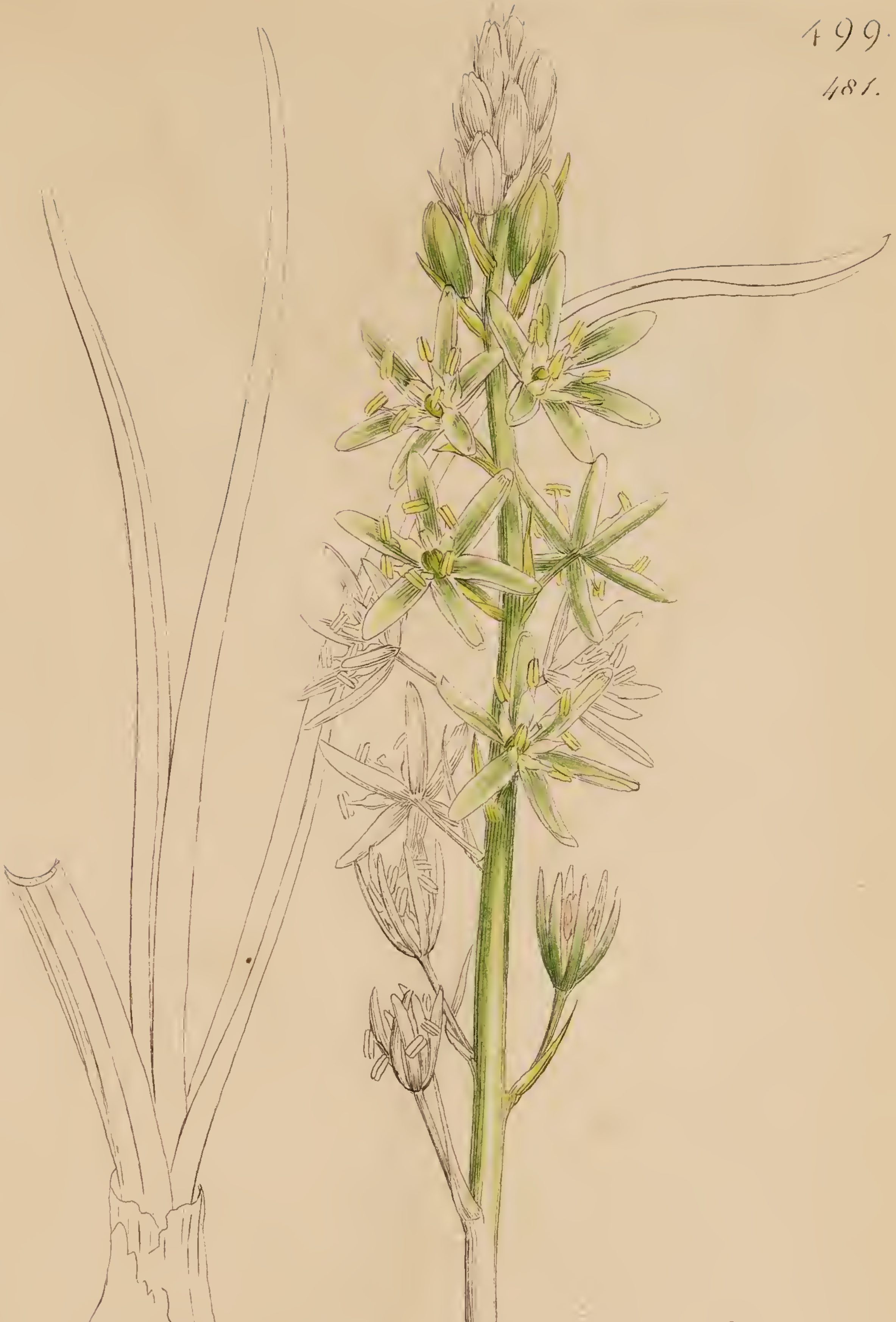


Gagea lutea.

J. Sowerby del.t June 1. 791.

499.

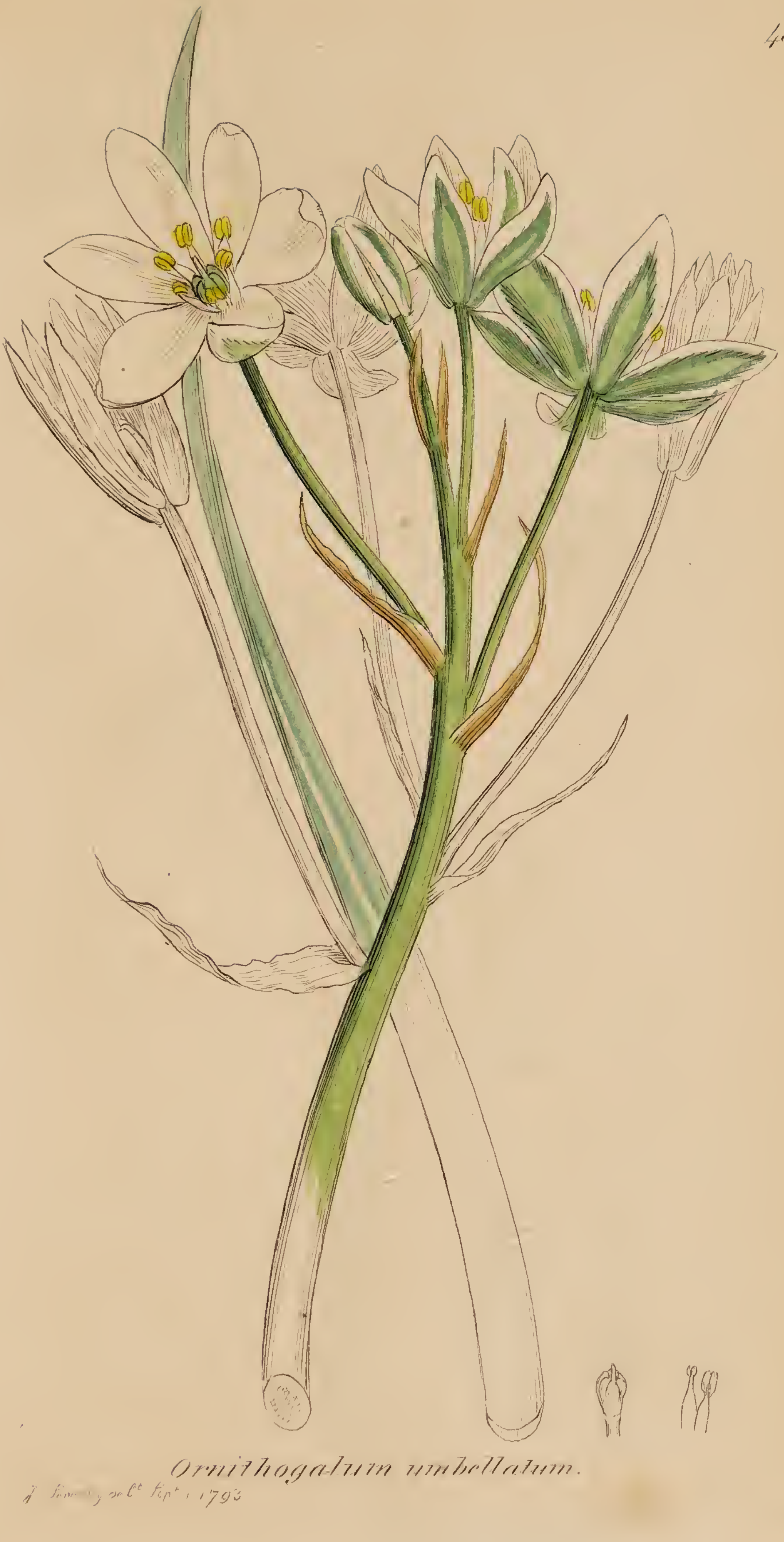
481.



Ornithogalum pyrenaicum.

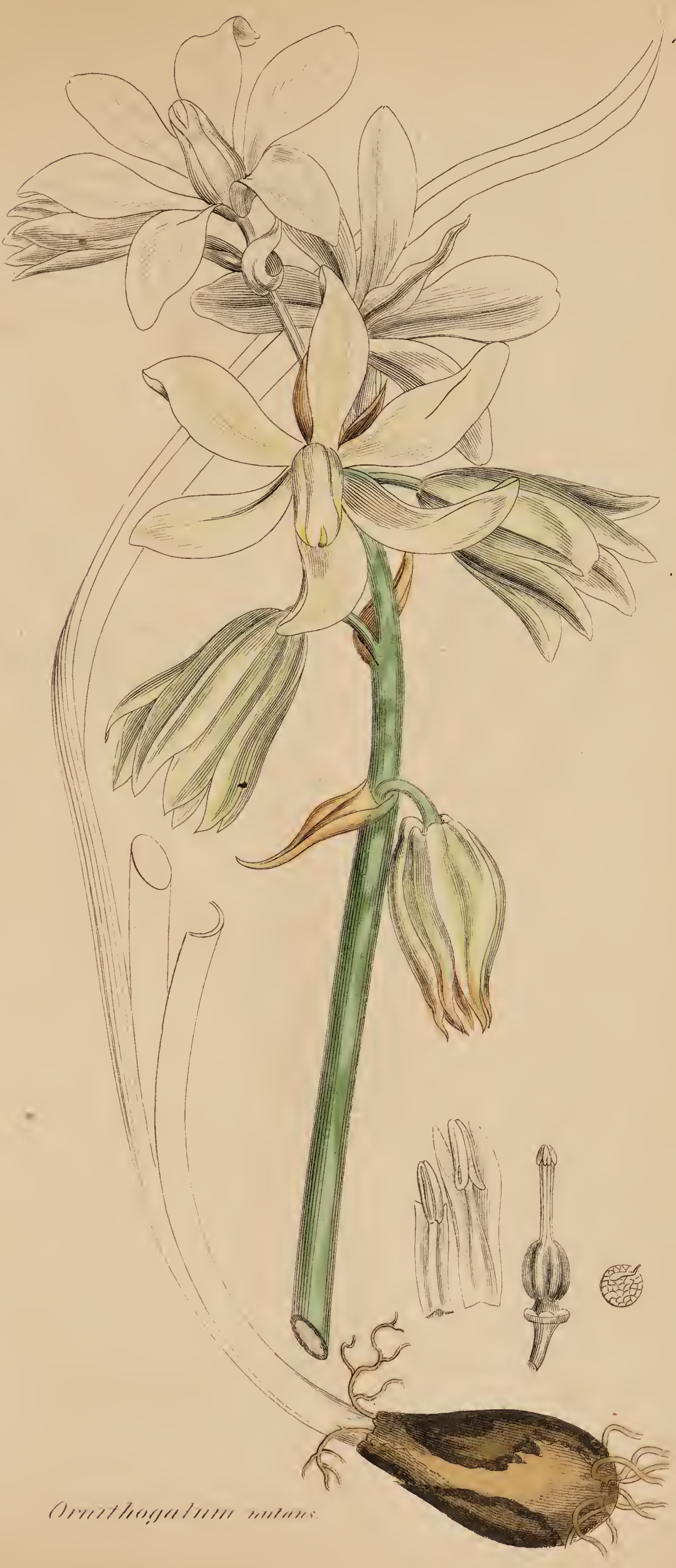
130.

482.



Ornithogalum umbellatum.

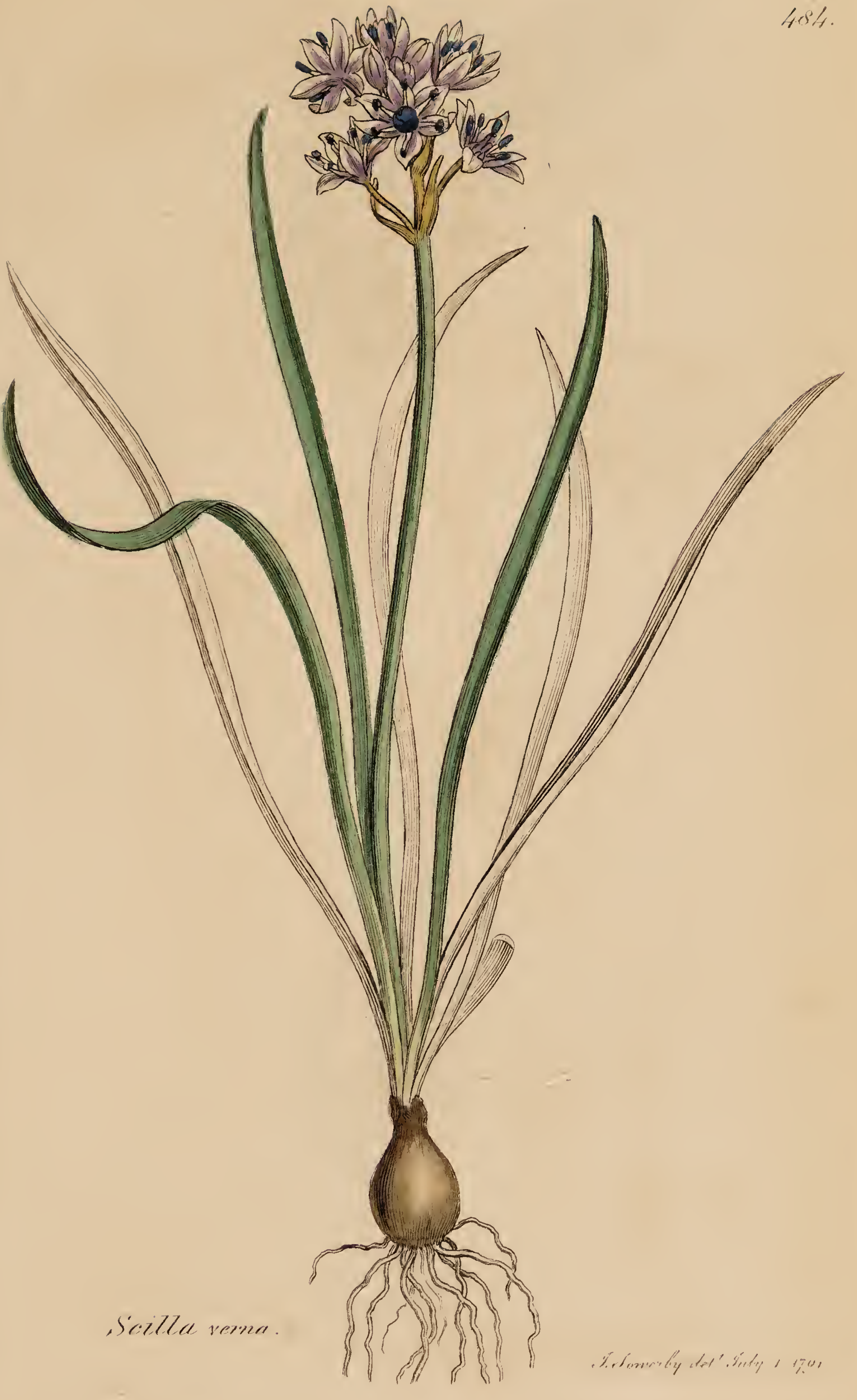
J. Sowerby delt. Sept. 1 1798



Ornithogalum nutans.

23

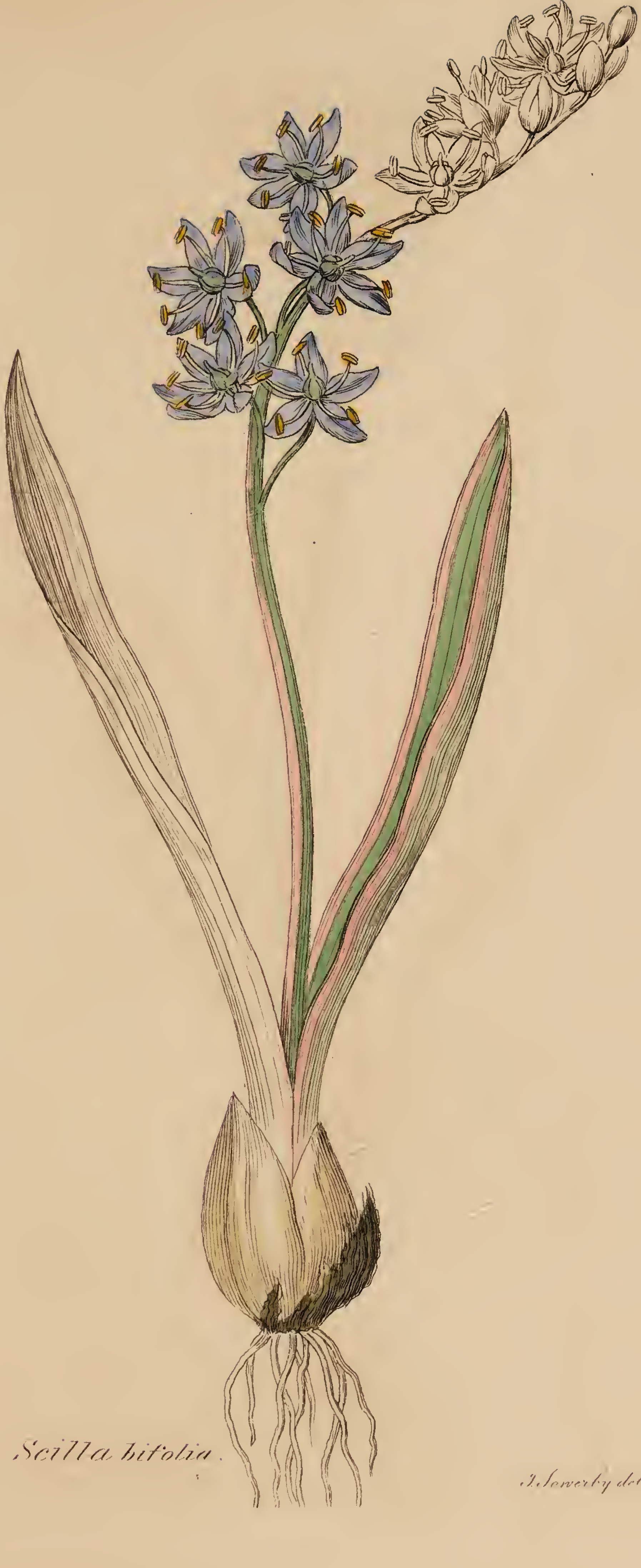
484.



Scilla verna.

J. Sowerby delt. July 1 1791

485.

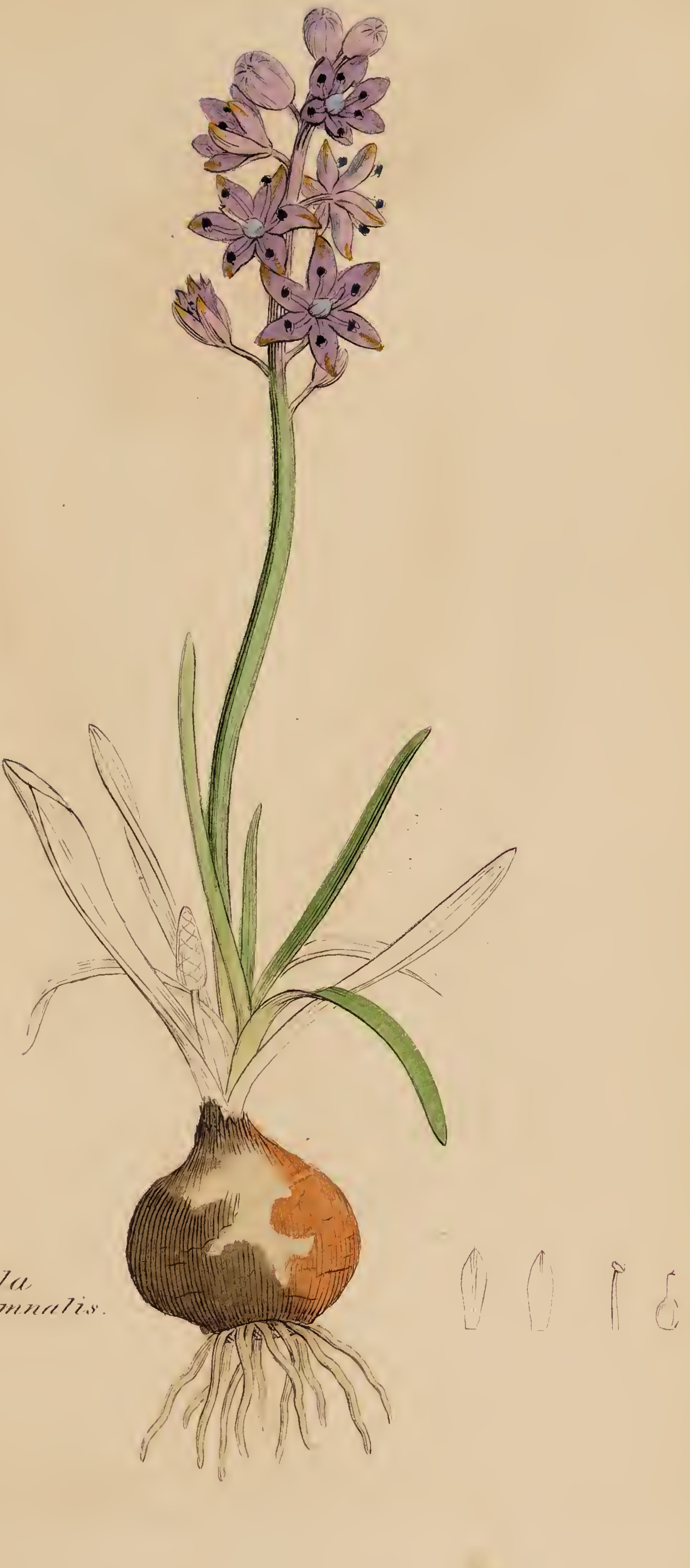


Scilla bifolia.

J. Sowerby del^{t} July 1. 1791.

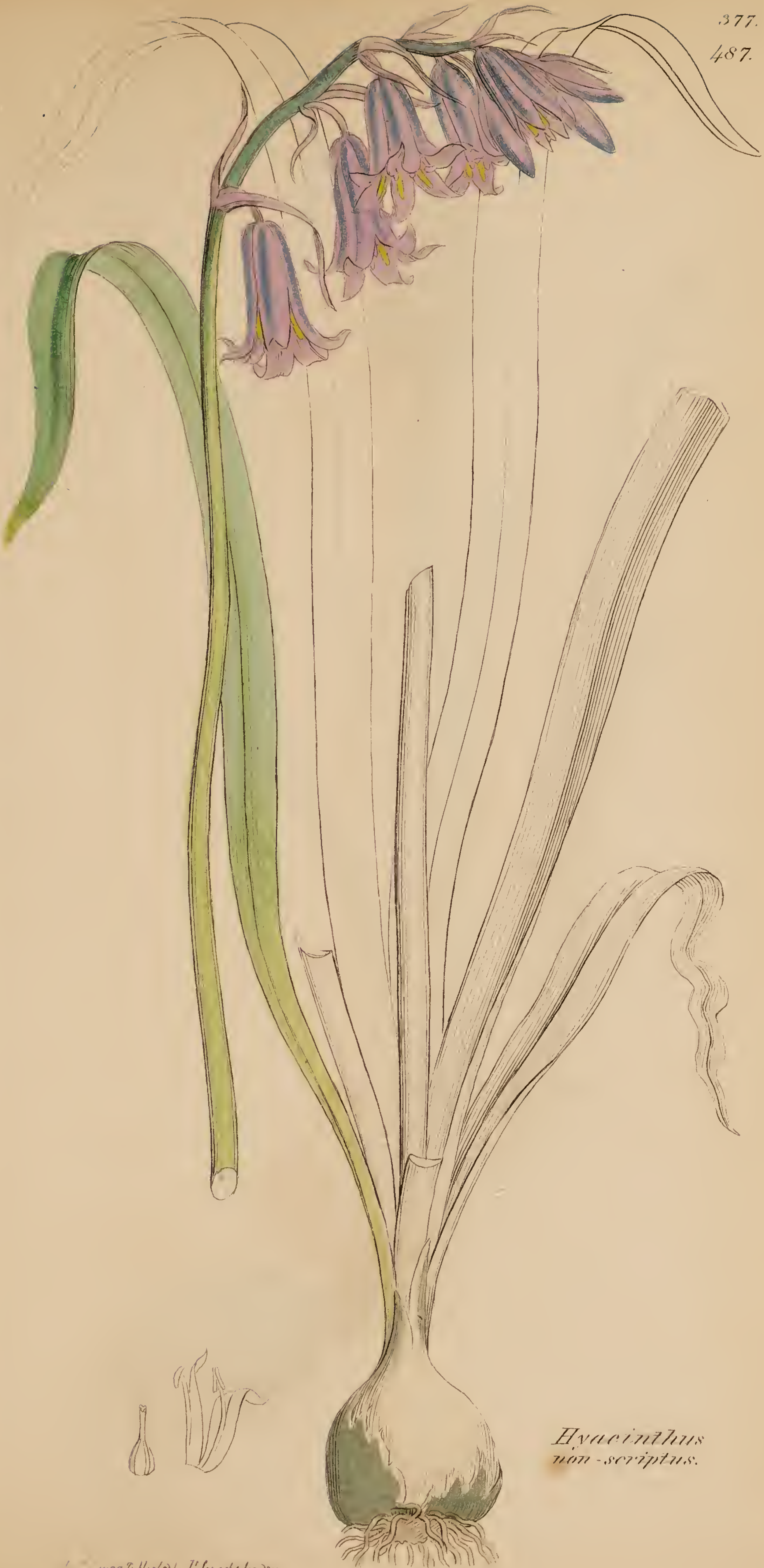
78.

486.



Scilla autumnalis.

377.
487.

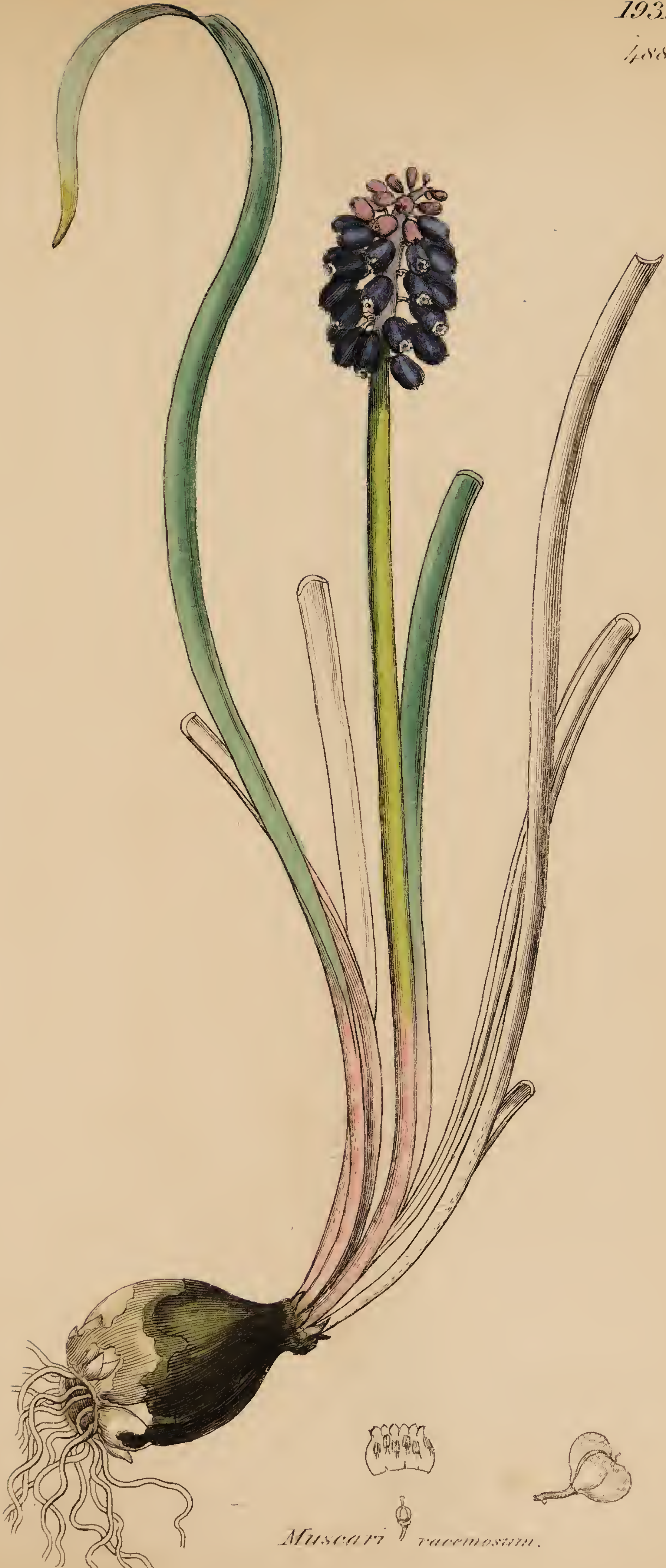


Hyacinthus
non-scriptus.

[illegible] 1807 Published by Js. Sowerby London.

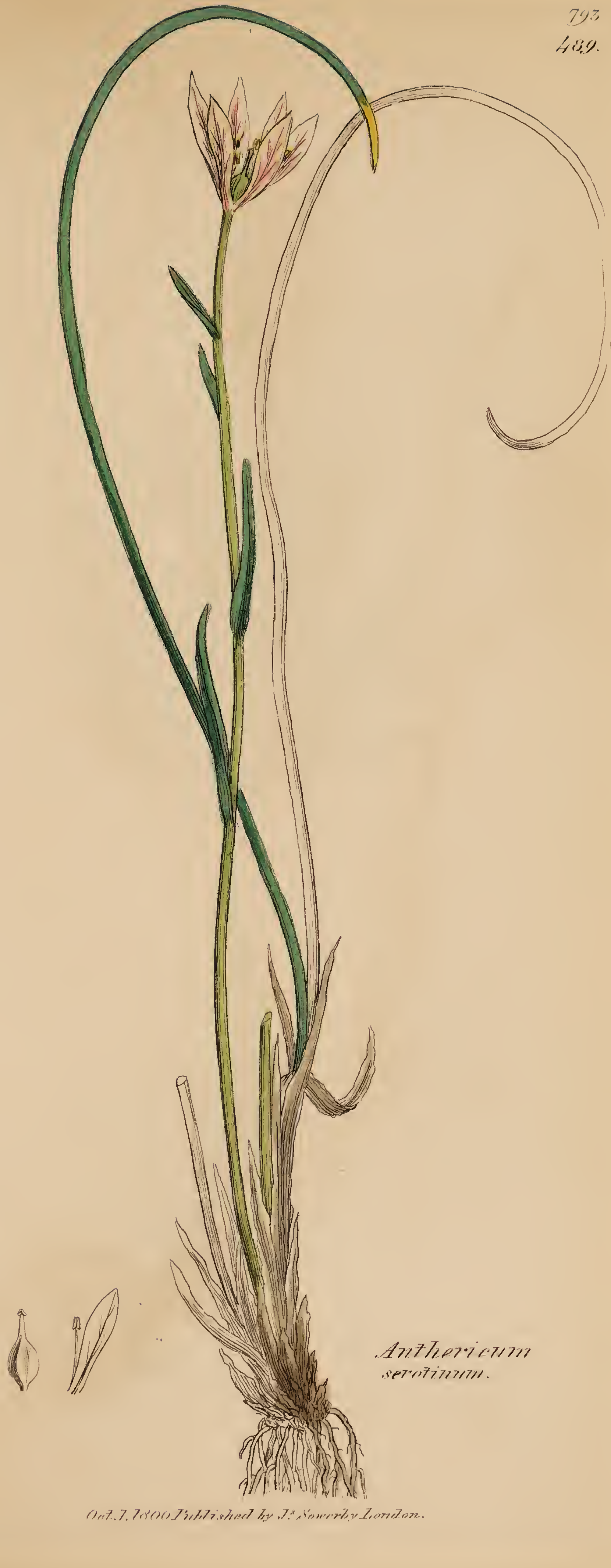
1931

488.



Muscari racemosum.

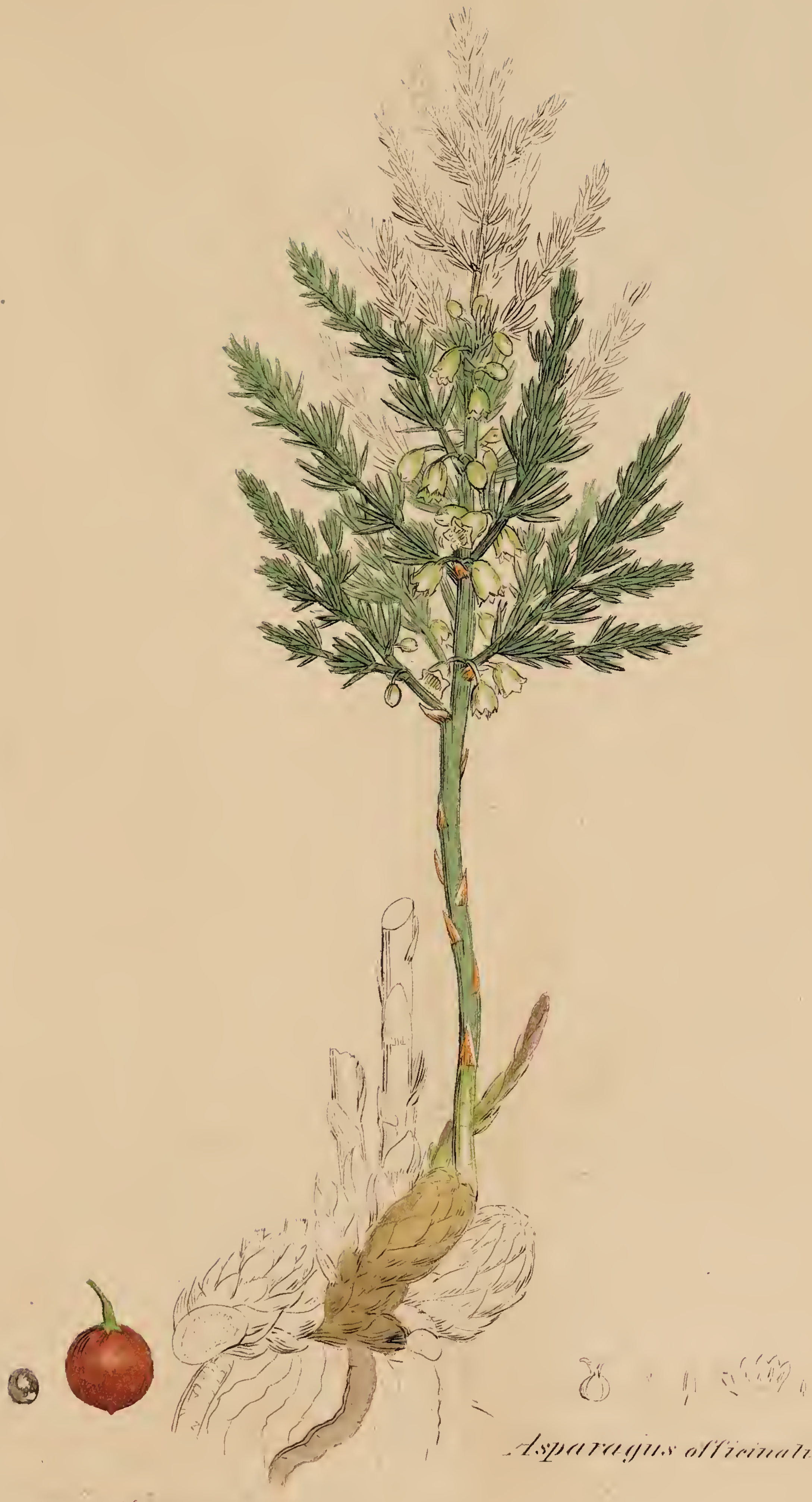
Sept 1 1808. Publish'd by Ja. Sowerby London.



Anthericum serotinum.

Oct. 1. 1800 Published by J.s Sowerby London.

490.

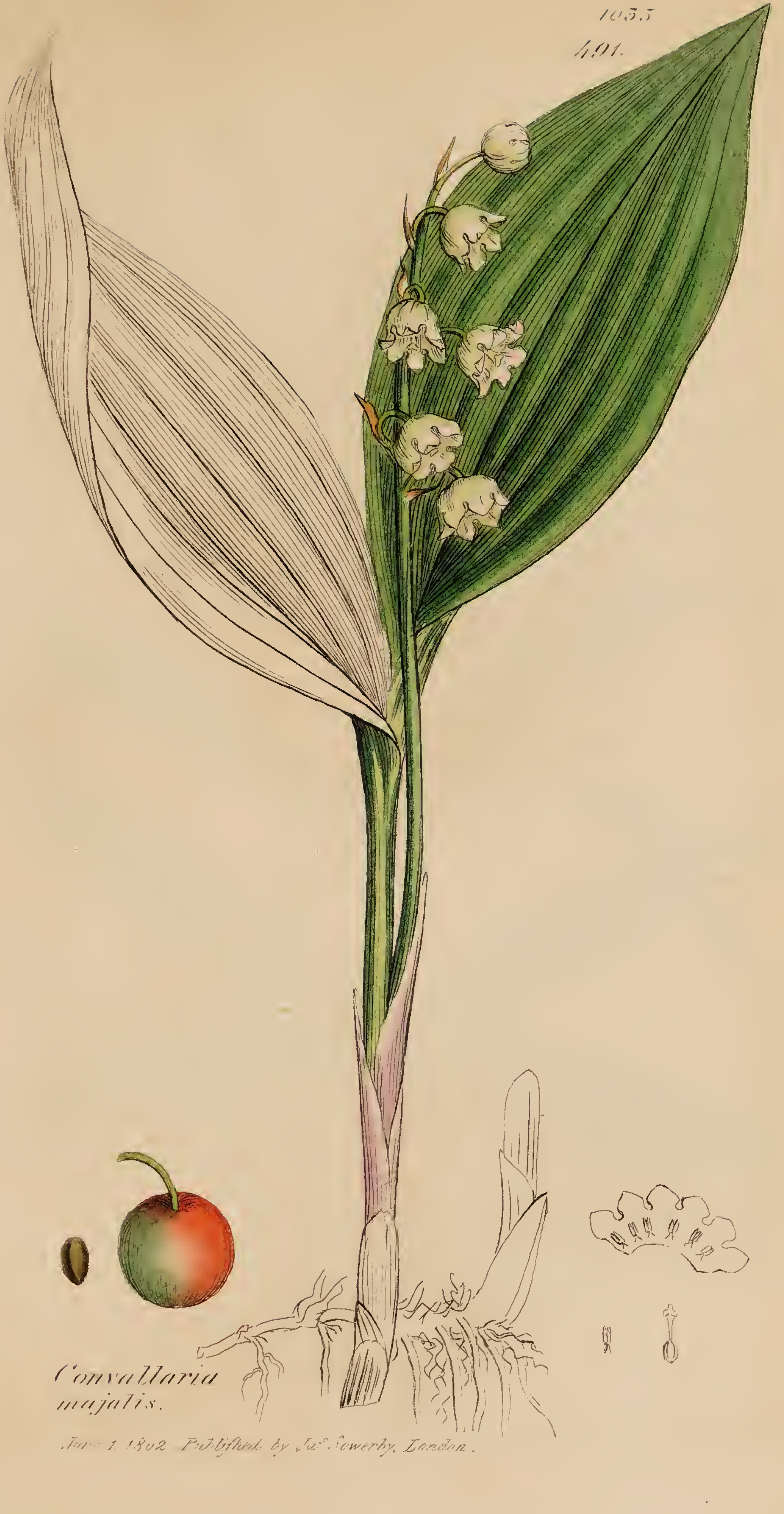


Asparagus officinalis.

1796

1035

491.

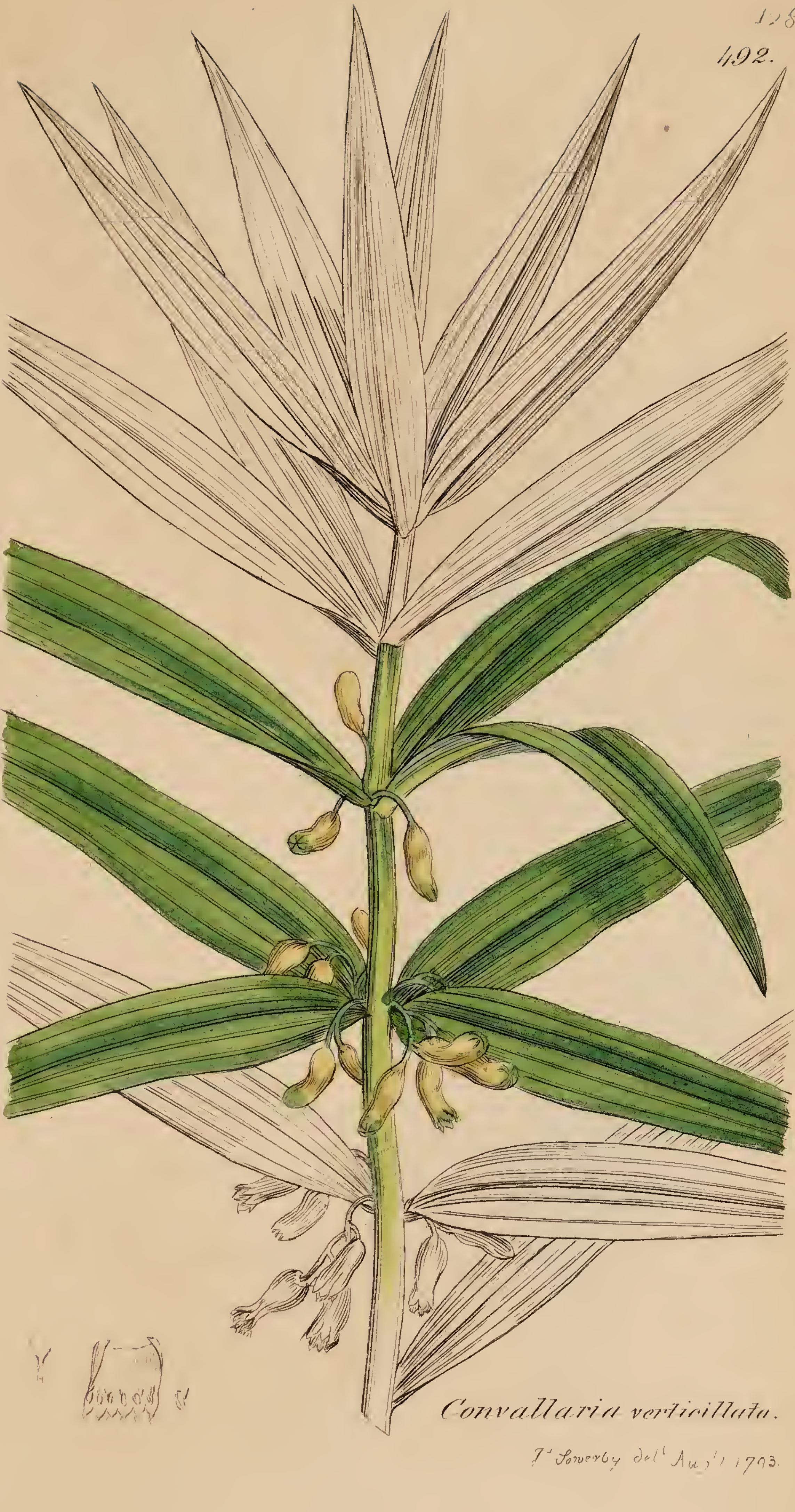


Convallaria majalis.

Jun: 1. 1802 Publiſhed by Jas. Sowerby, London.

128.

492.

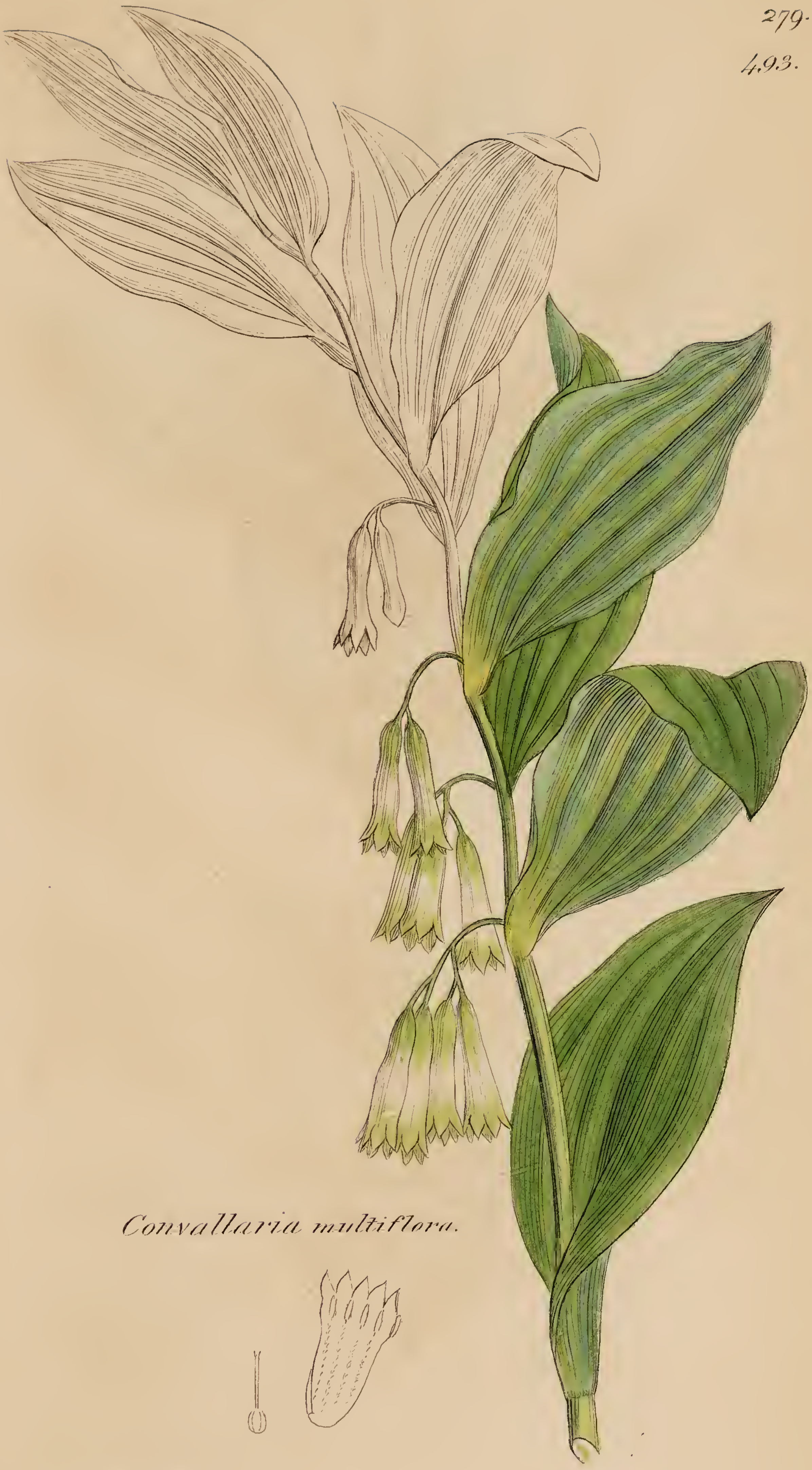


Convallaria verticillata.

Js Sowerby delt Augt 1 1793.

279.

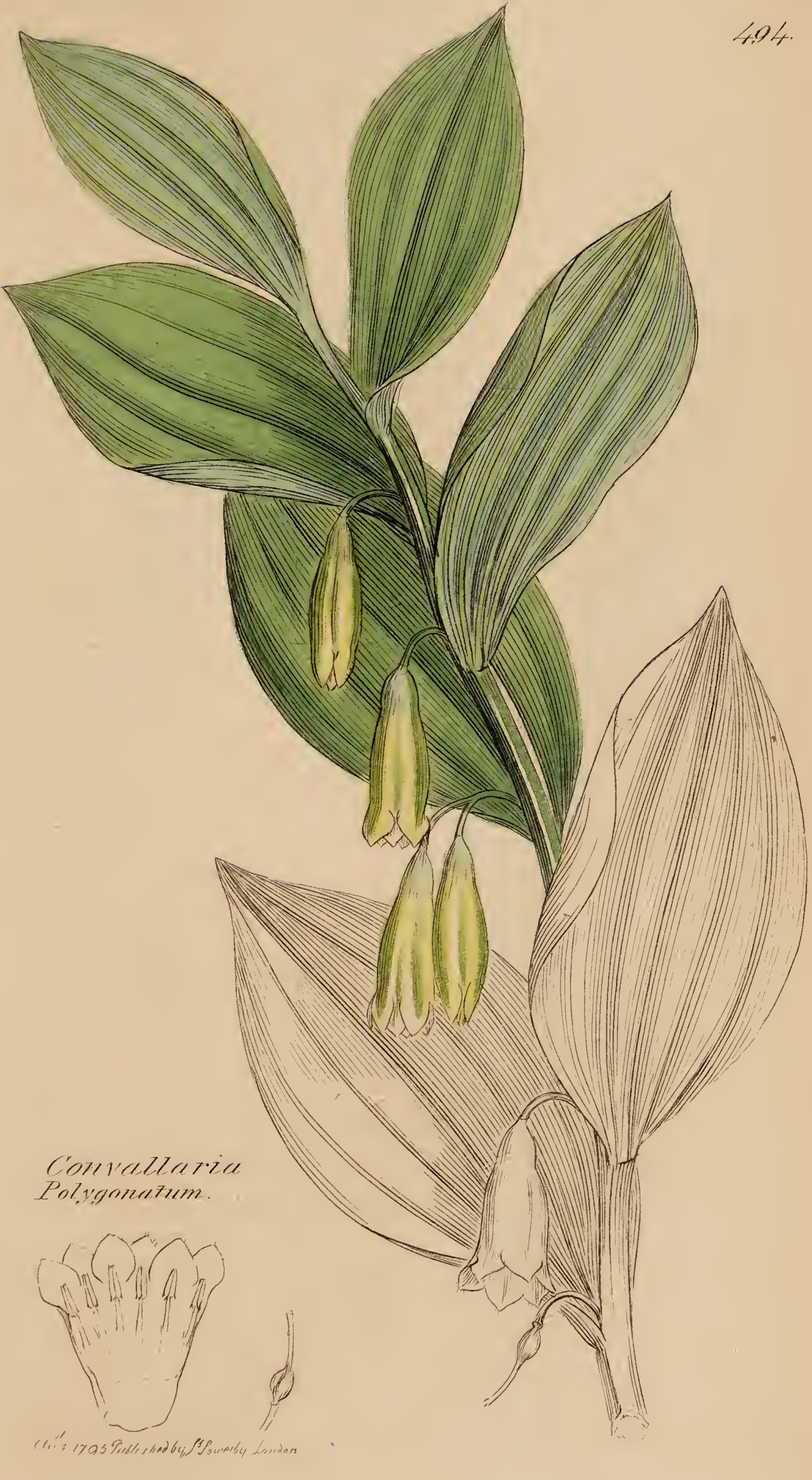
493.



Convallaria multiflora.

280

494.

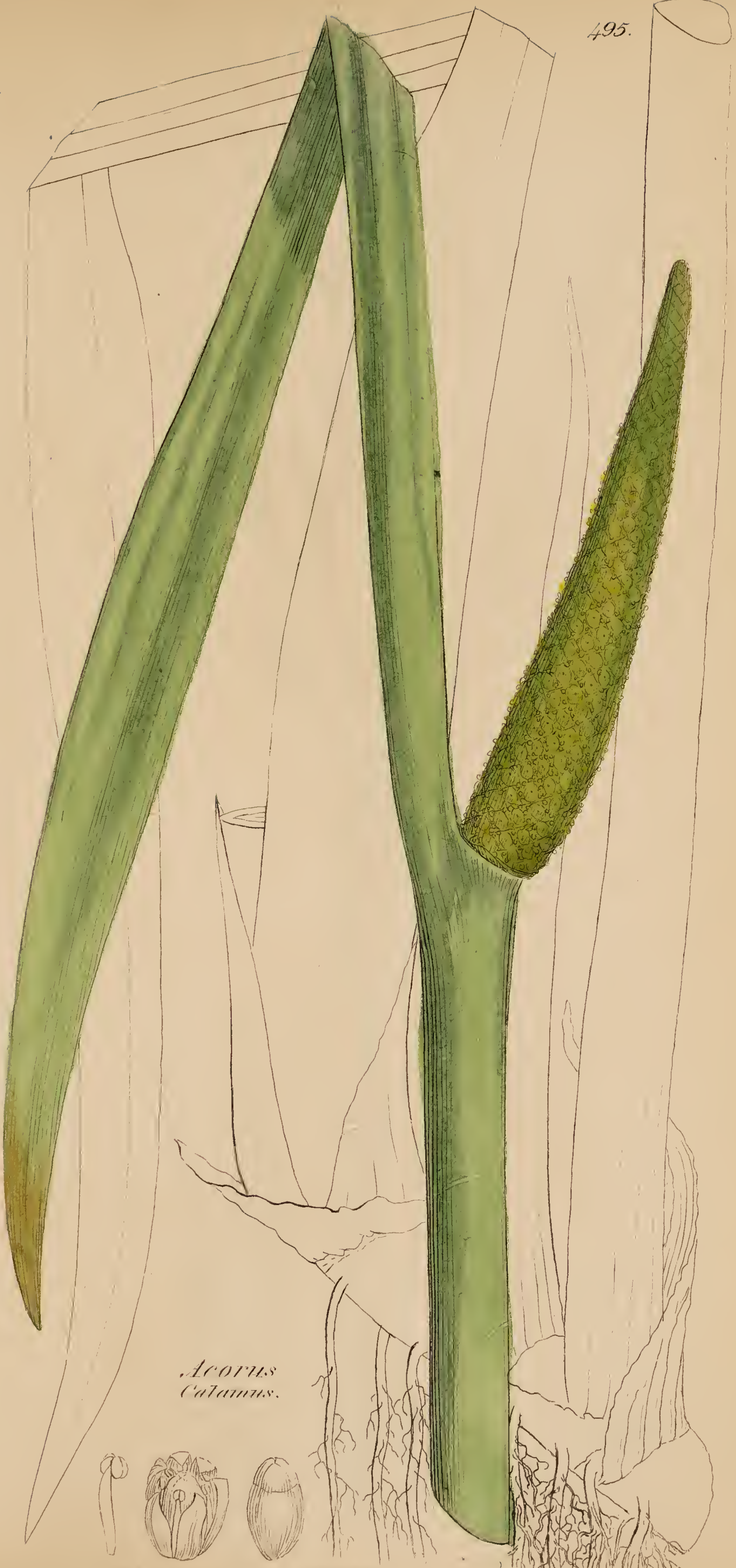


Convallaria Polygonatum.

Oct.r 1. 1795 Publish'd by J.s Sowerby London

* 356

495.

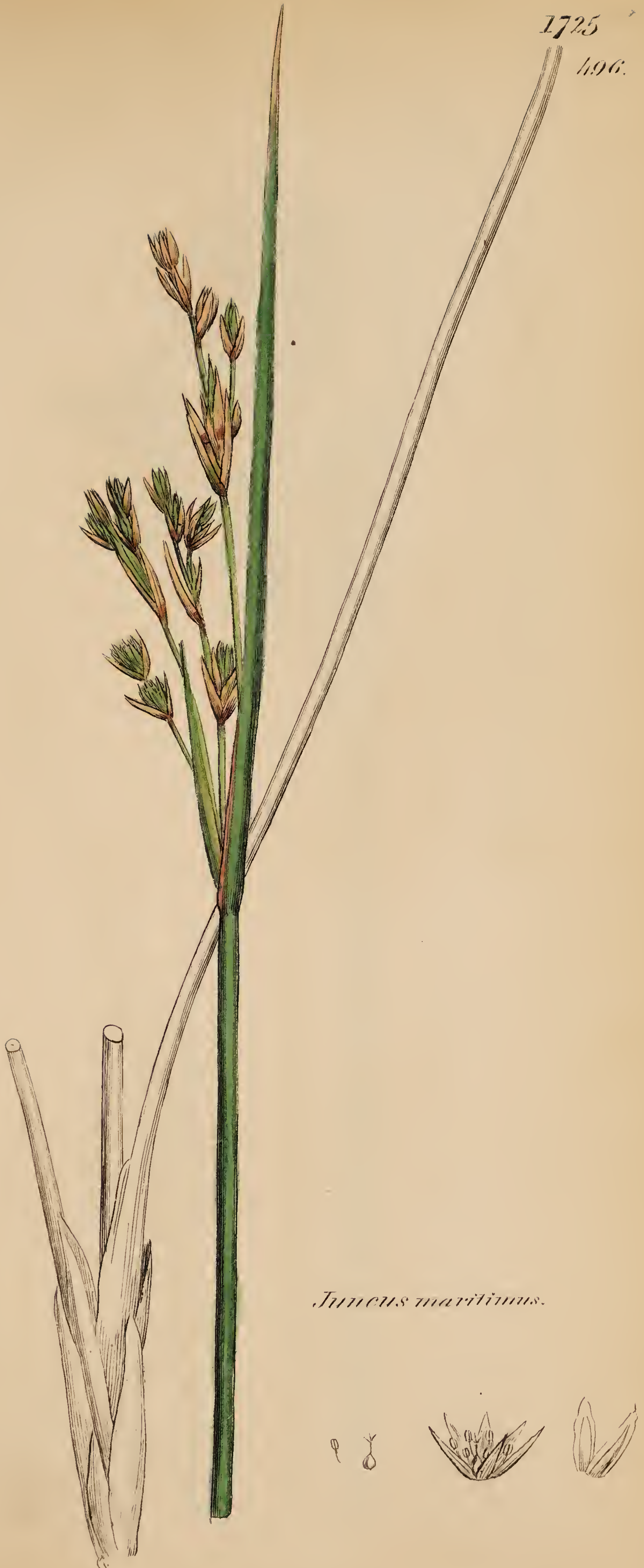


Acorus
Calamus.

[illegible]
]

1725

496.

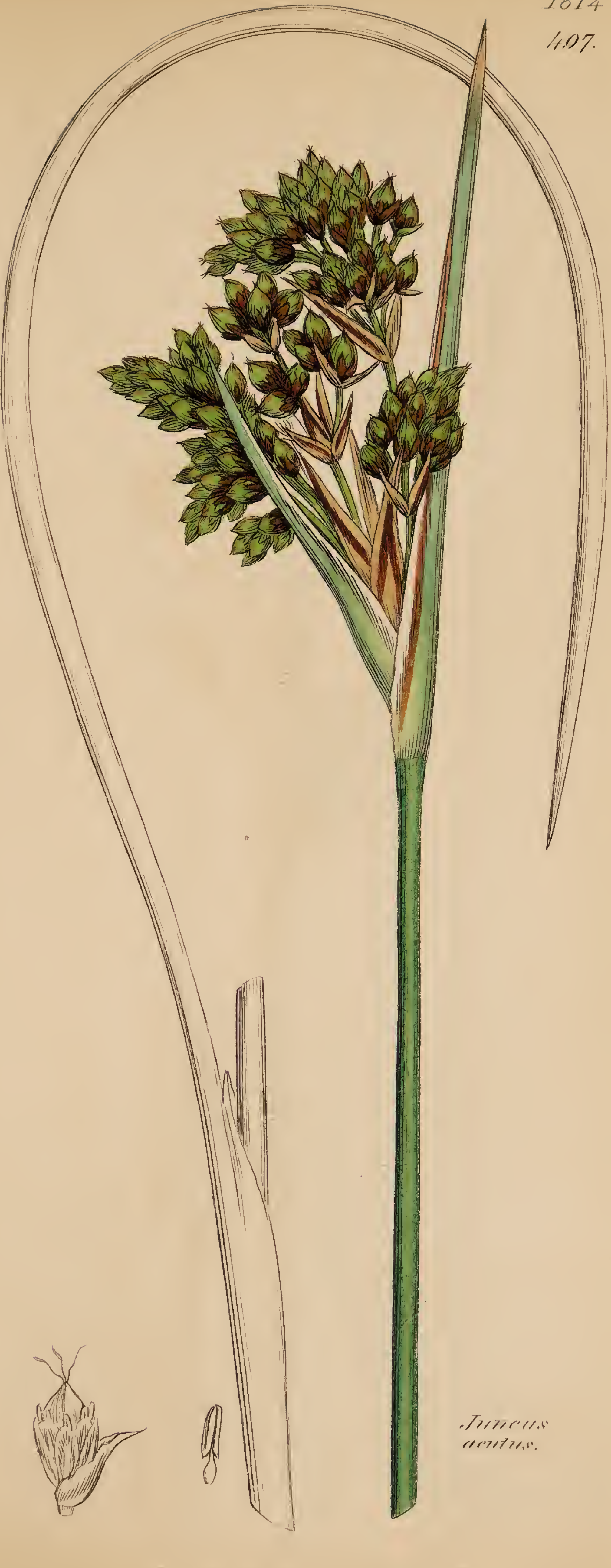


Juncus maritimus.

Apr. 1. 1807 Publish'd by Jas. Sowerby London.

1614

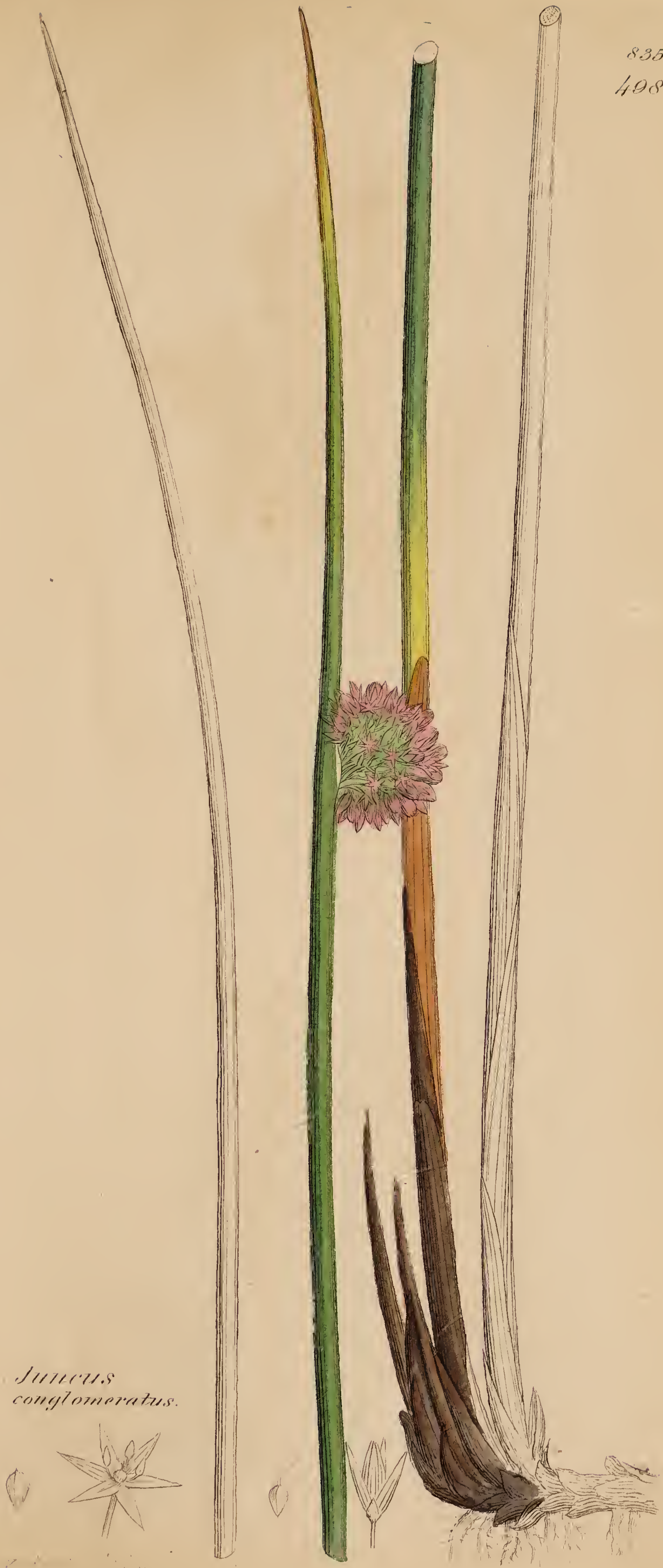
497.



Juncus acutus.

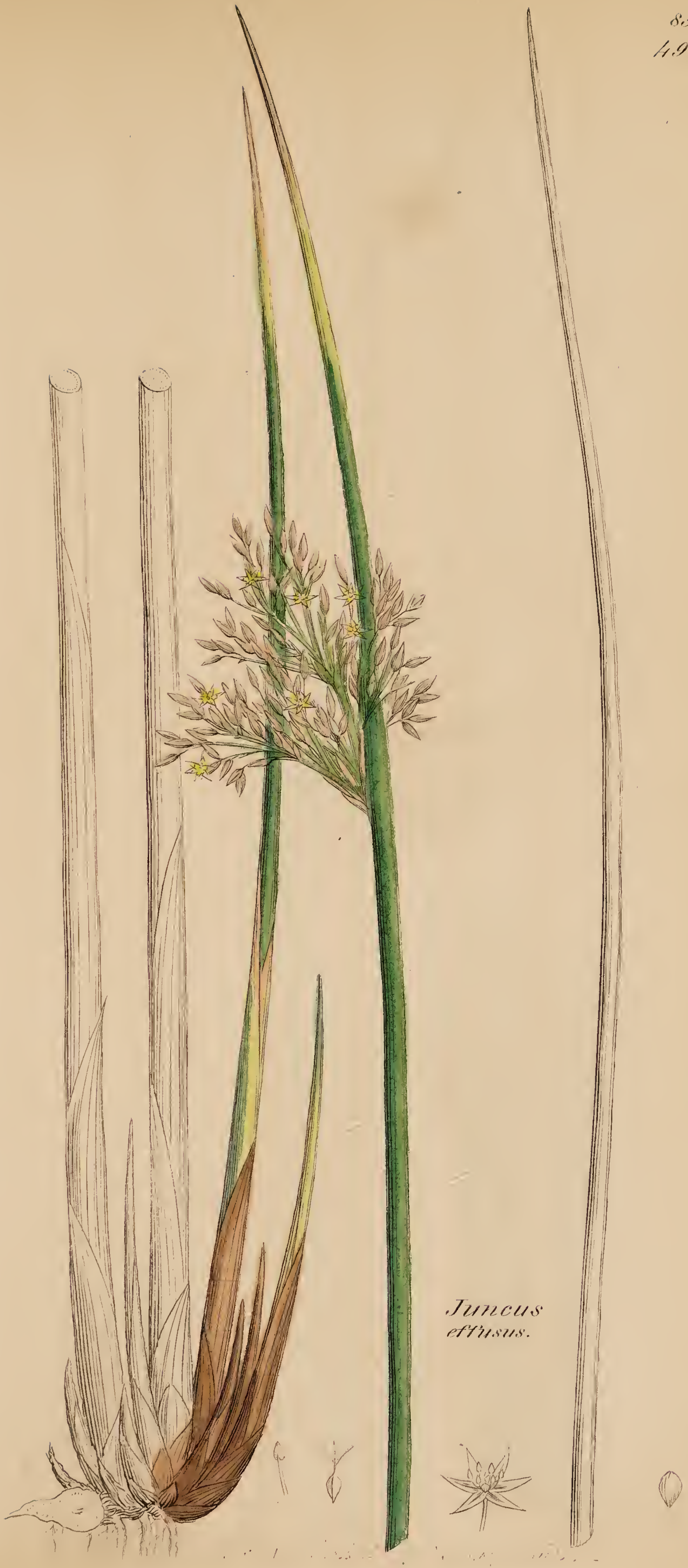
July 1. 1806. Published by Jas. Sowerby, London.

835.
498.



Juncus conglomeratus.

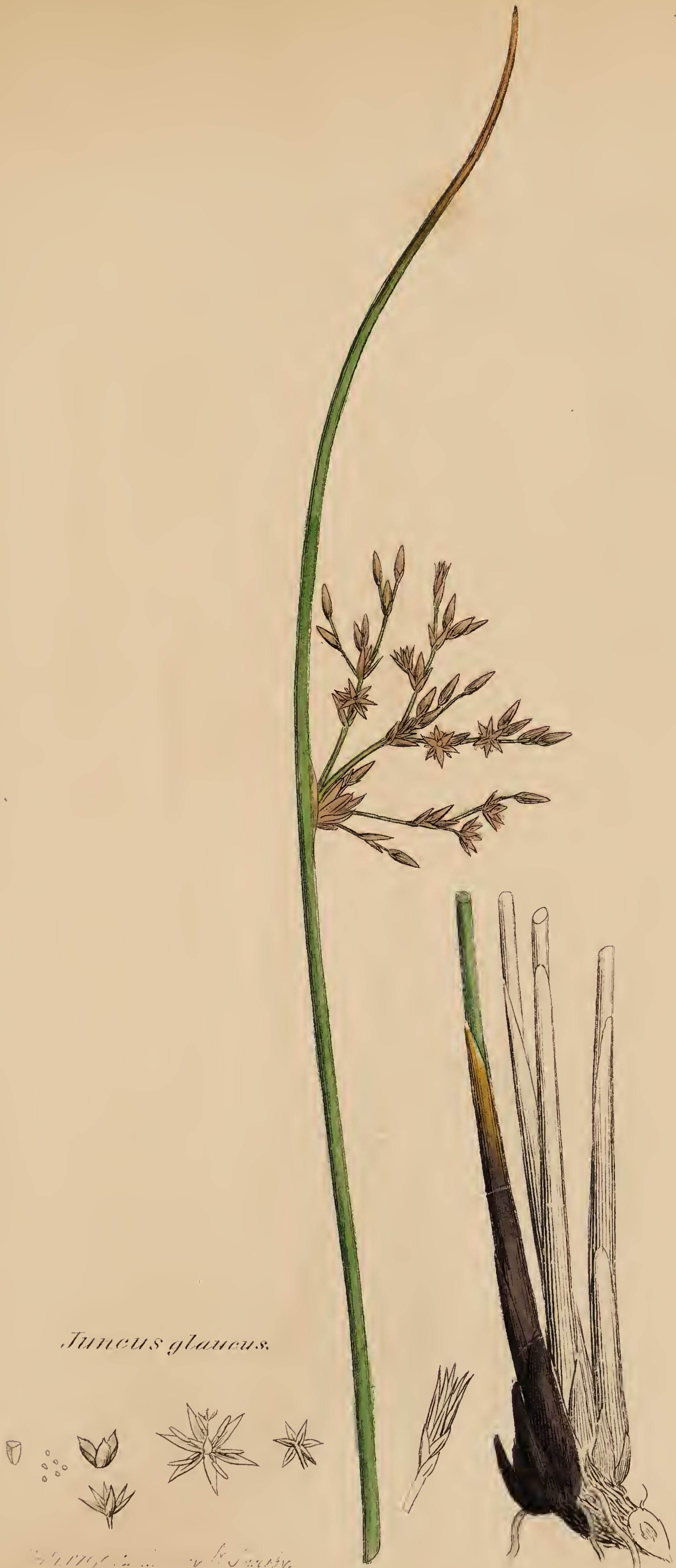
836.
499.



Juncus effusus.

665

500.

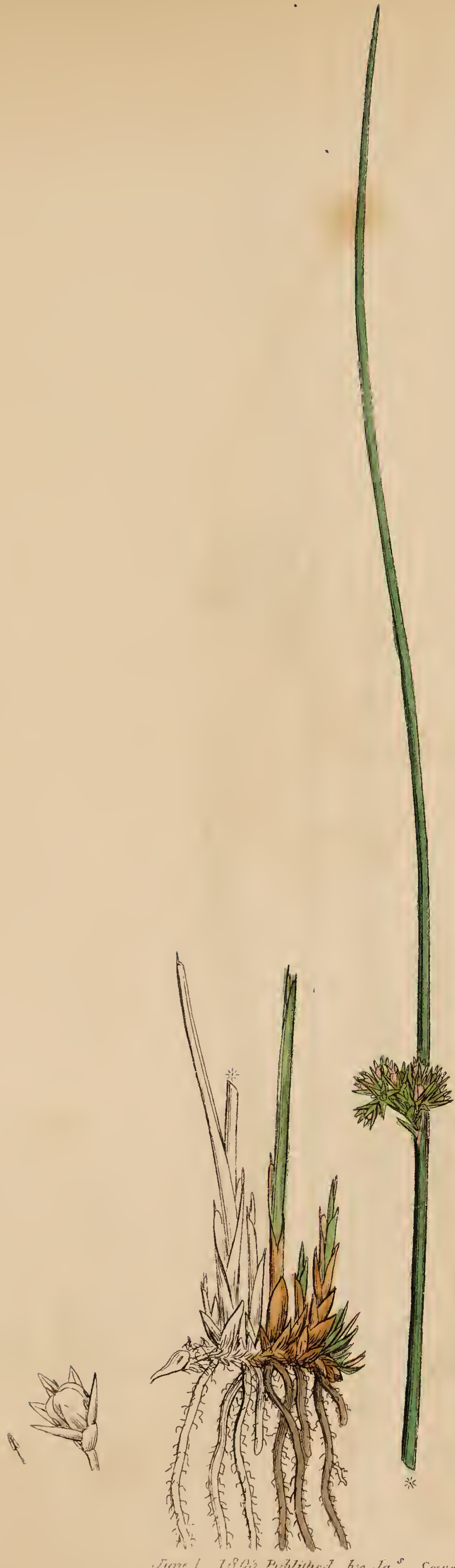


Juncus glaucus.

[illegible] by J. Sowerby.

1175

501

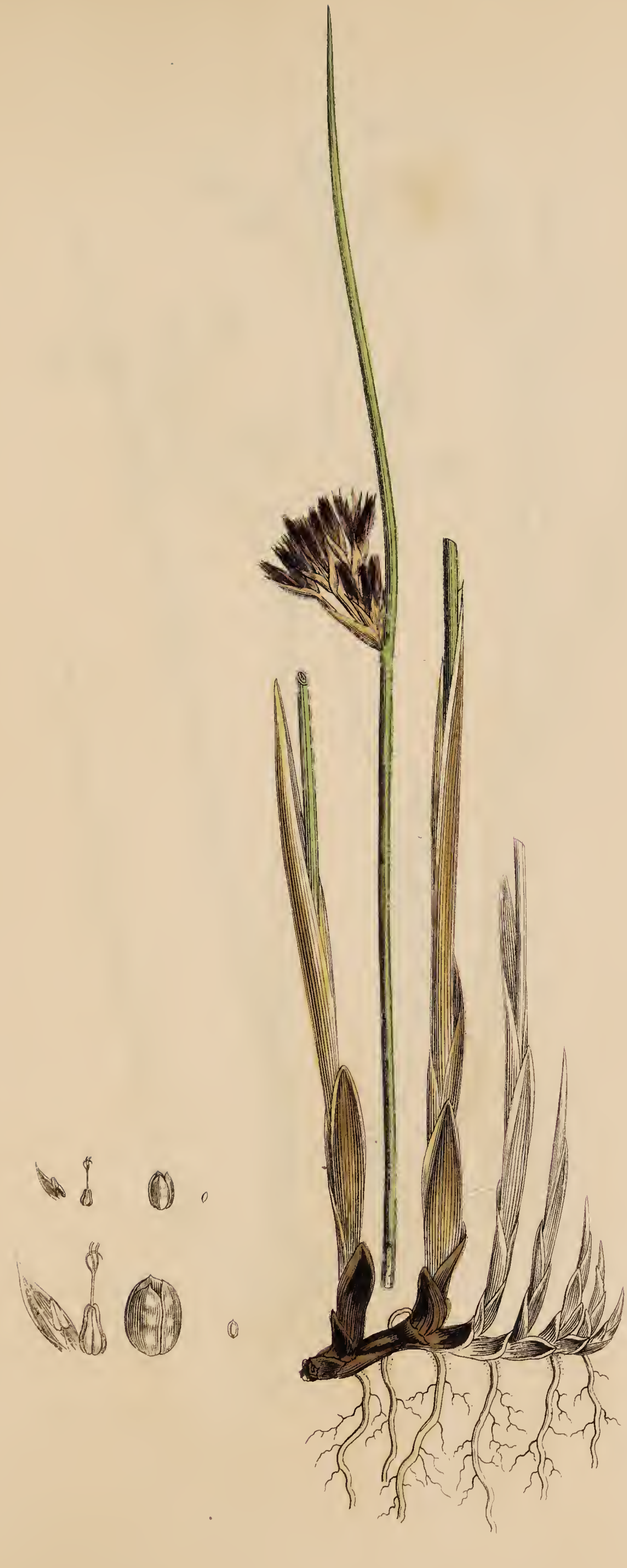


Juncus filiformis.

June 1 1803 Published by Jas. Sowerby, London

2621.

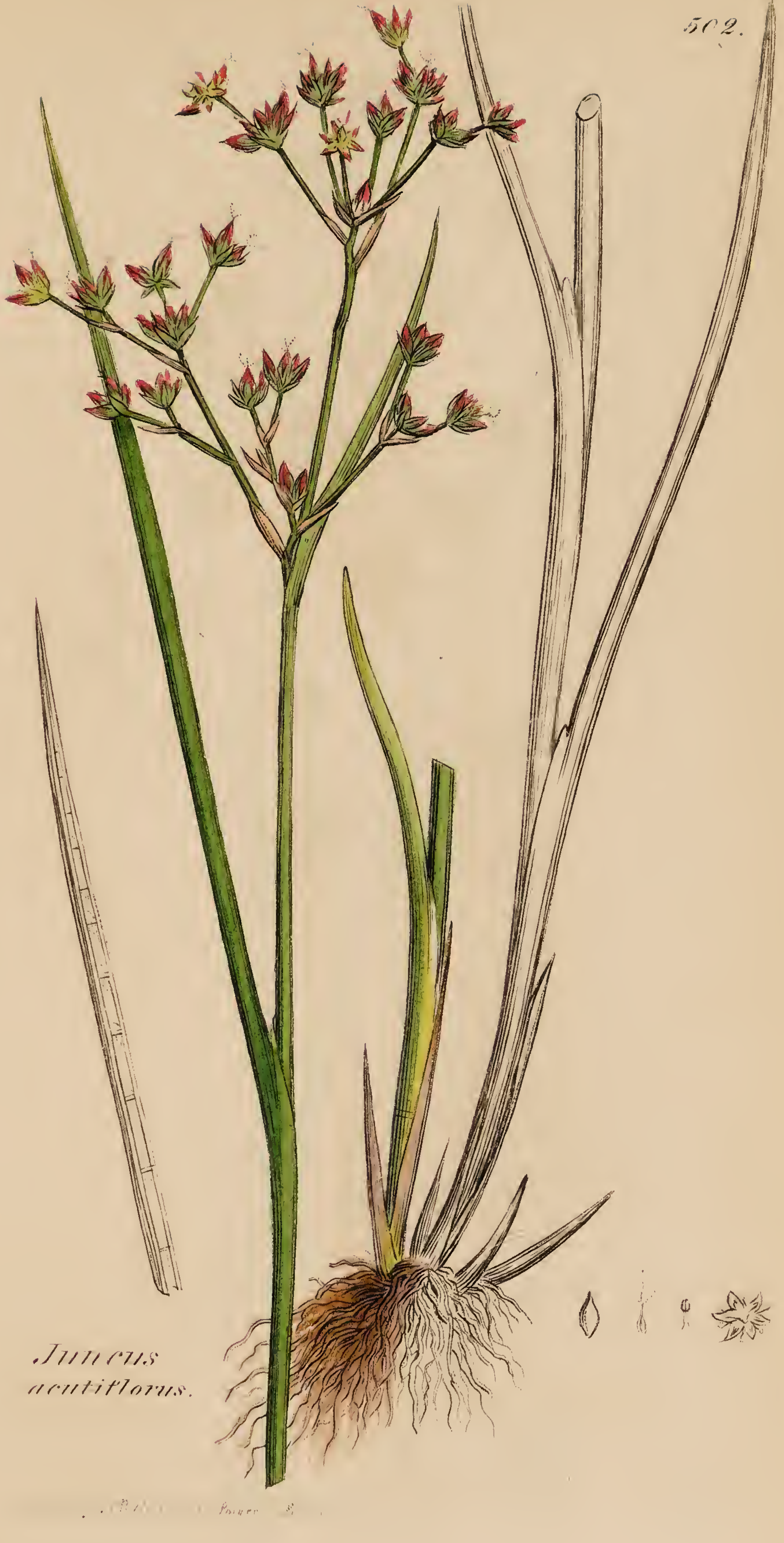
501 *



January 1st 1830.

9.36

562.

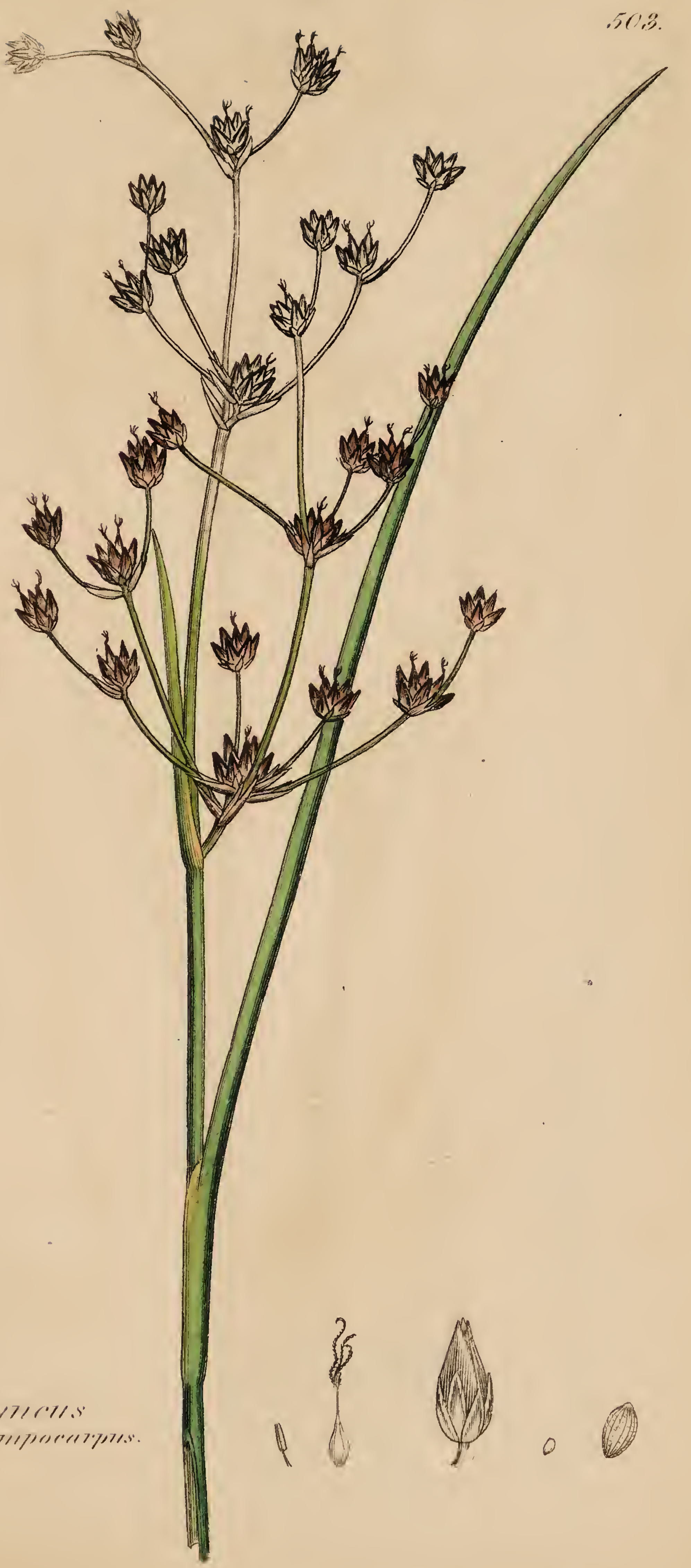


Juncus acutiflorus.

[illegible] Fawner [illegible]

2143

.503.

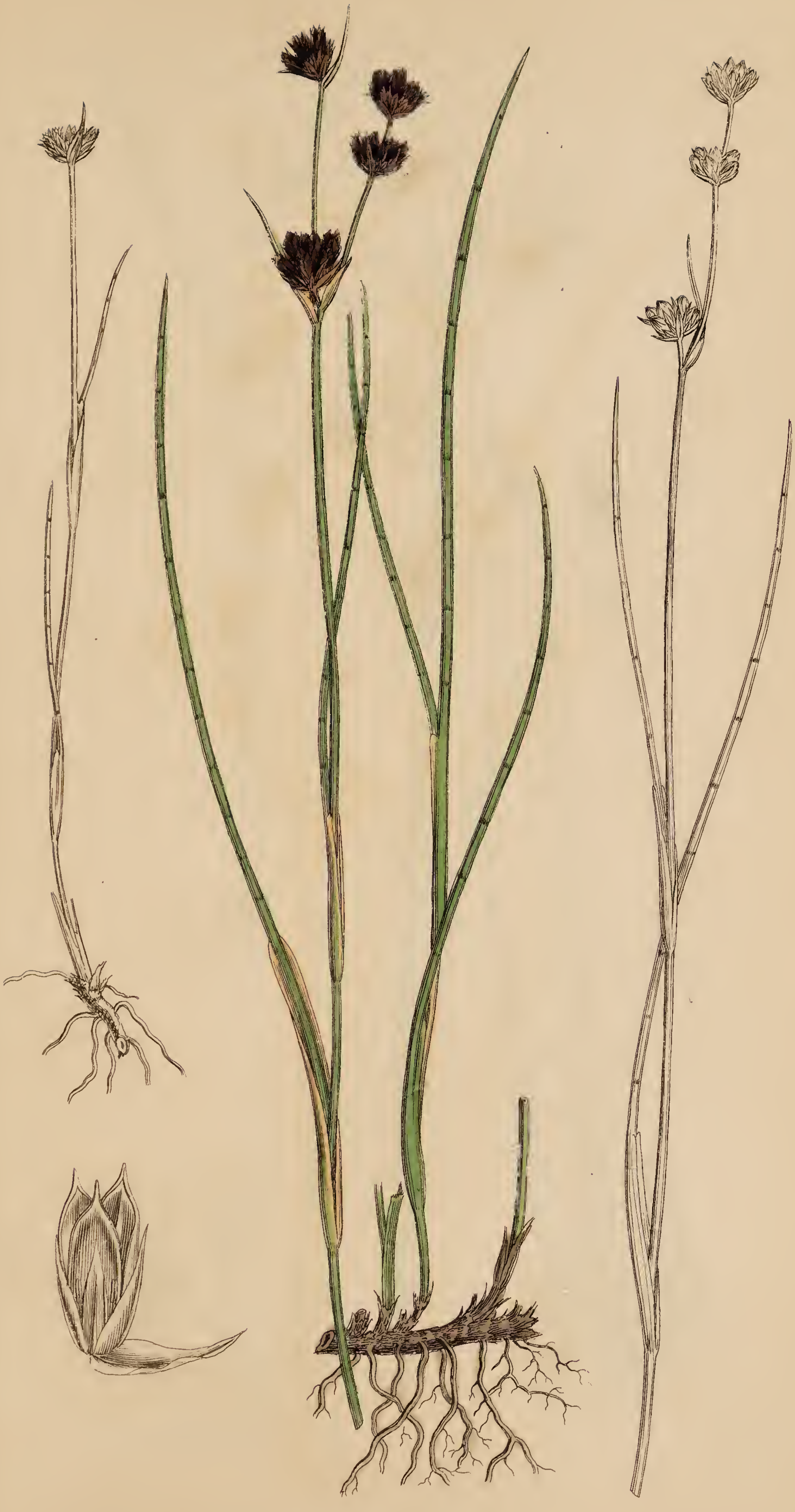


Juncus lampocarpus.

May 1 1810 published by Js Sowerby London

2643.

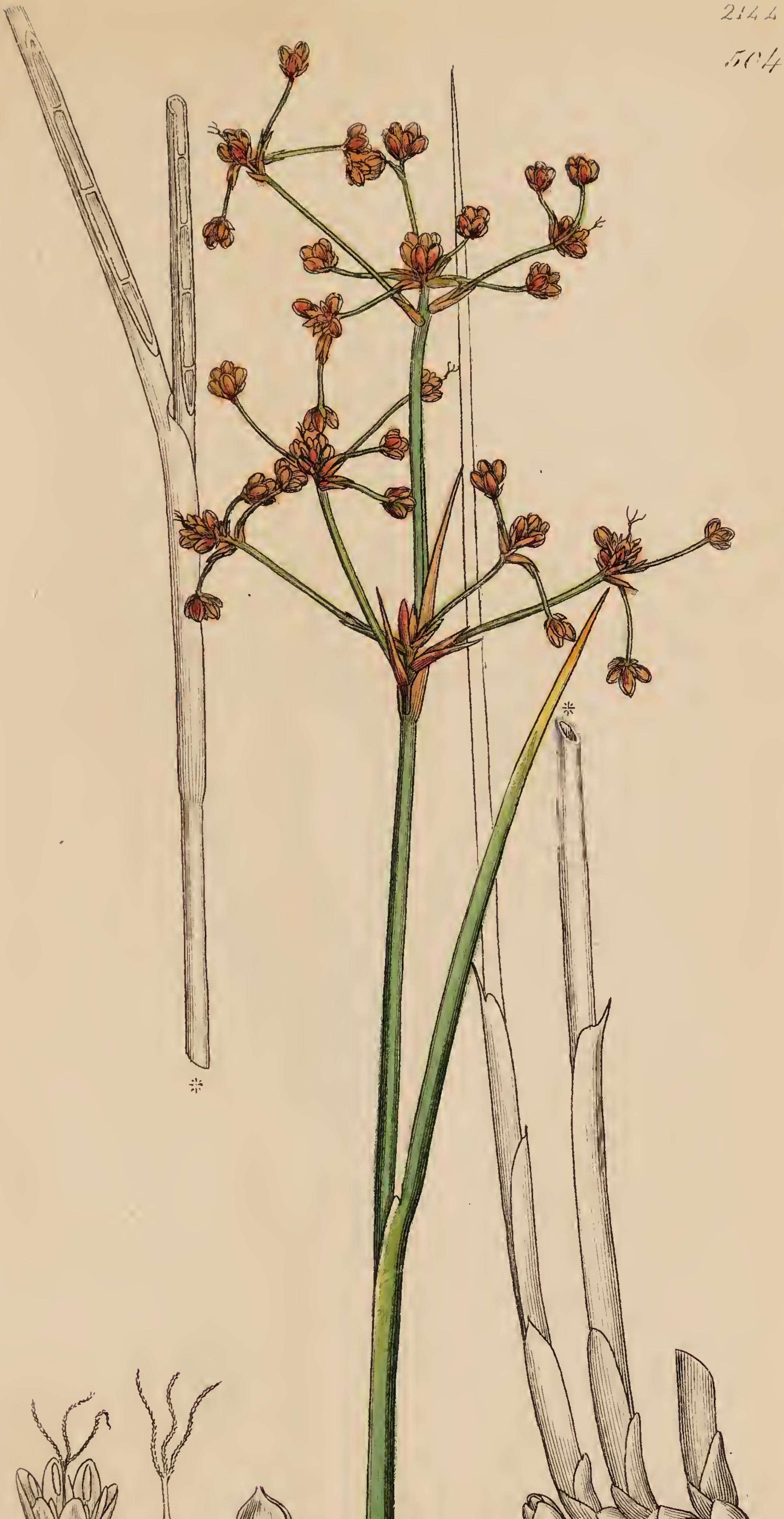
503*



June 1st 1830.

2144

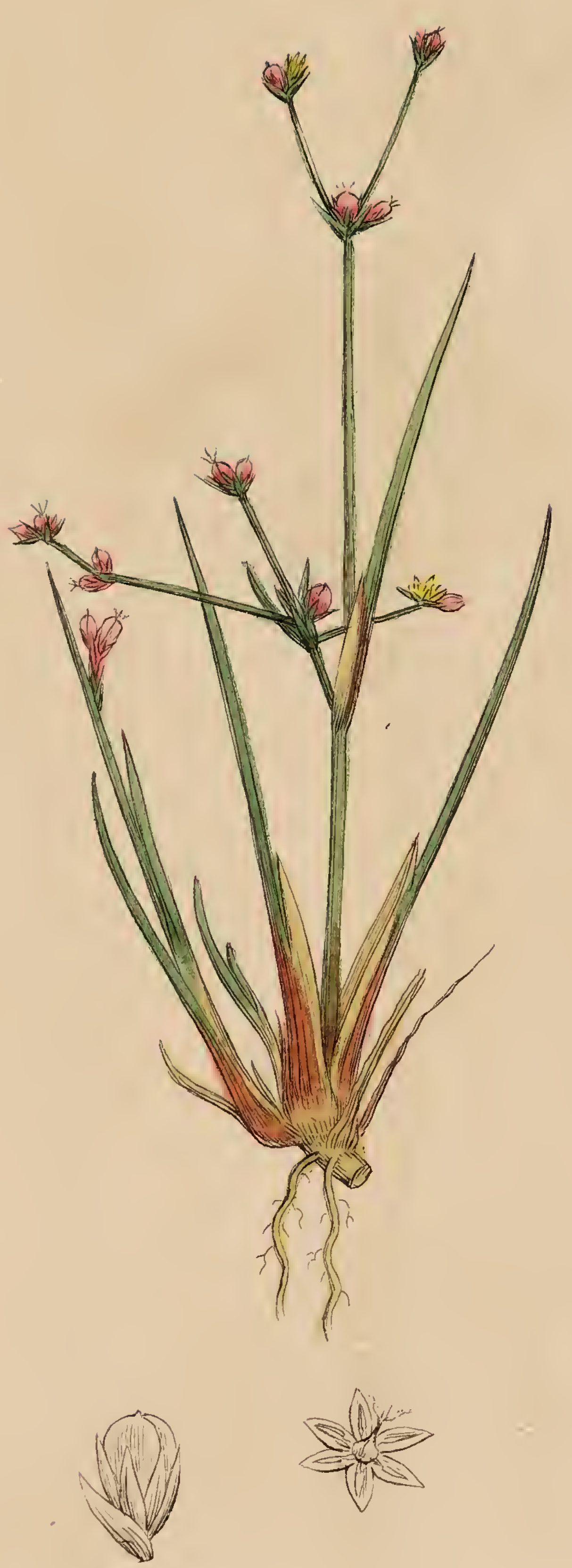
504.



Juncus obtusiflorus.

Apl 1 1810 published by Jas Sowerby London

801
505.

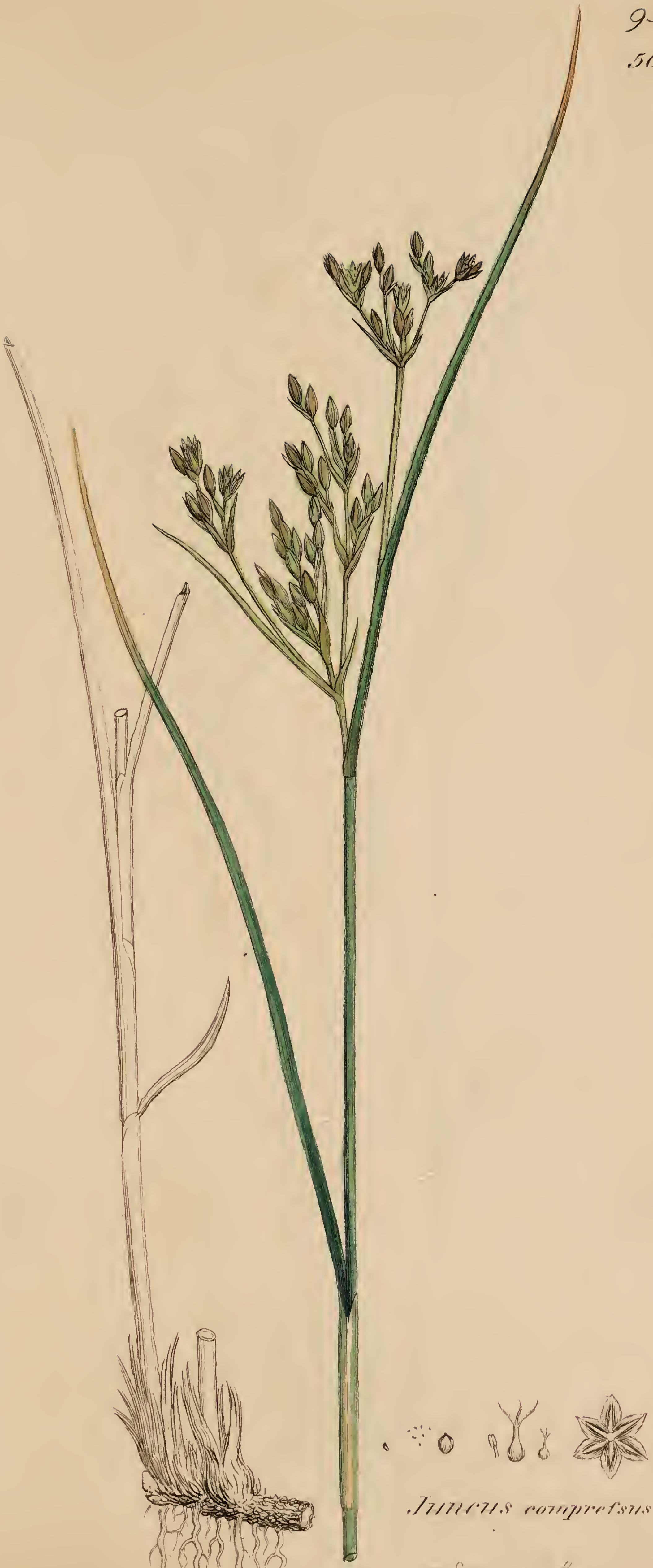


Juncus uliginosus.

Novr. 1. 1800 Publiſhed by Js. Sowerby, London.

934.

506.

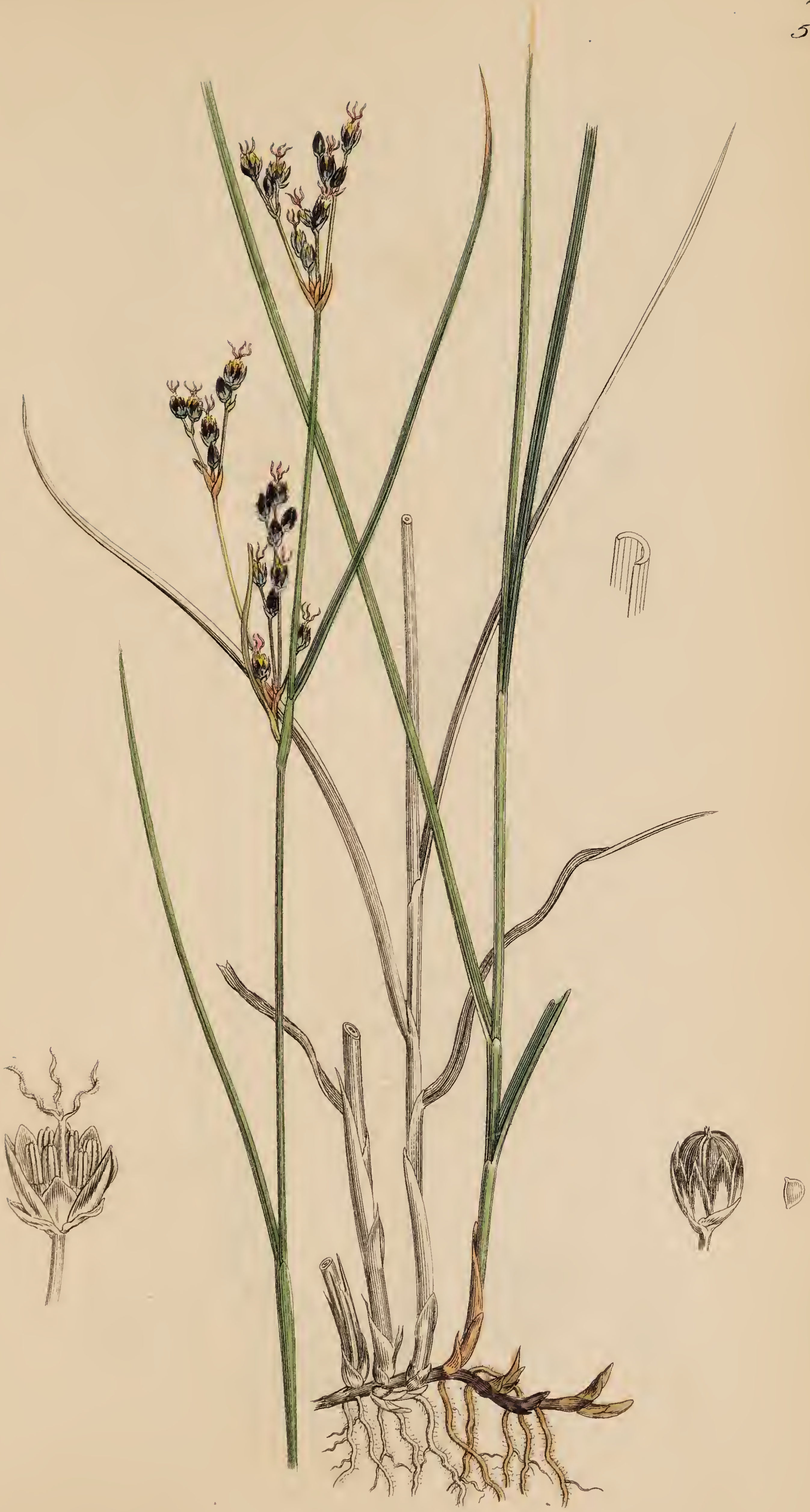


Juncus compreſsus.

[illegible]

2680.

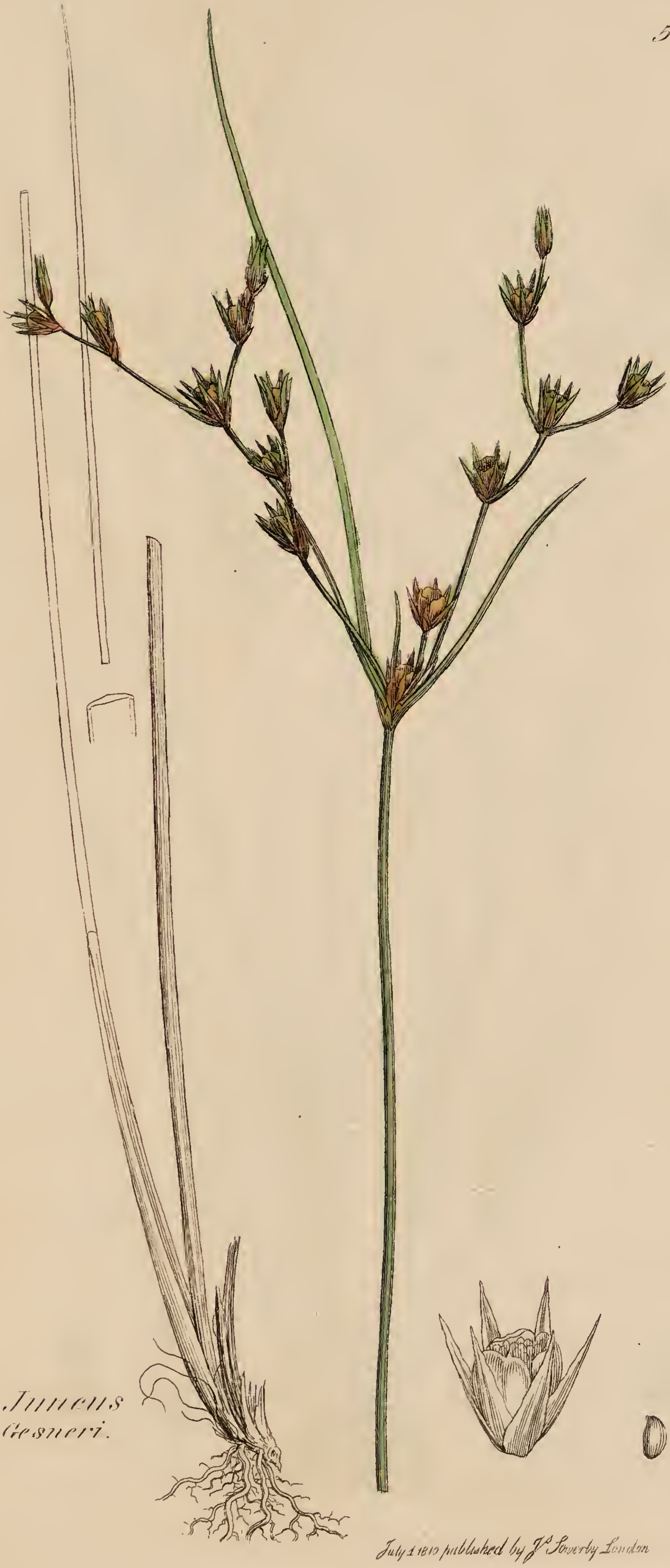
506*



February 1st 1831.

2174

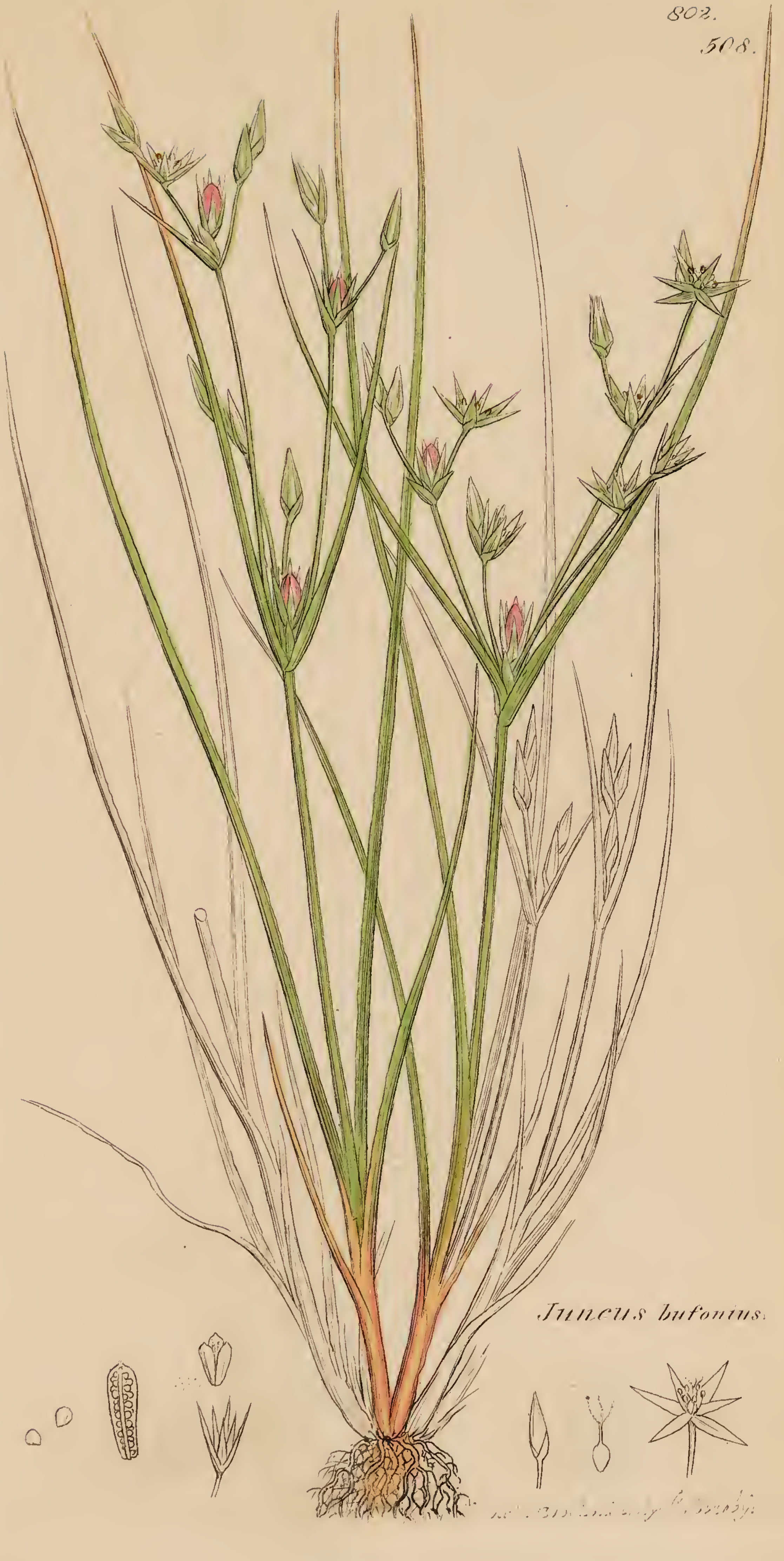
507.



Juncus
Gesneri.

July 1 1810 published by Js Sowerby London

802.
508.

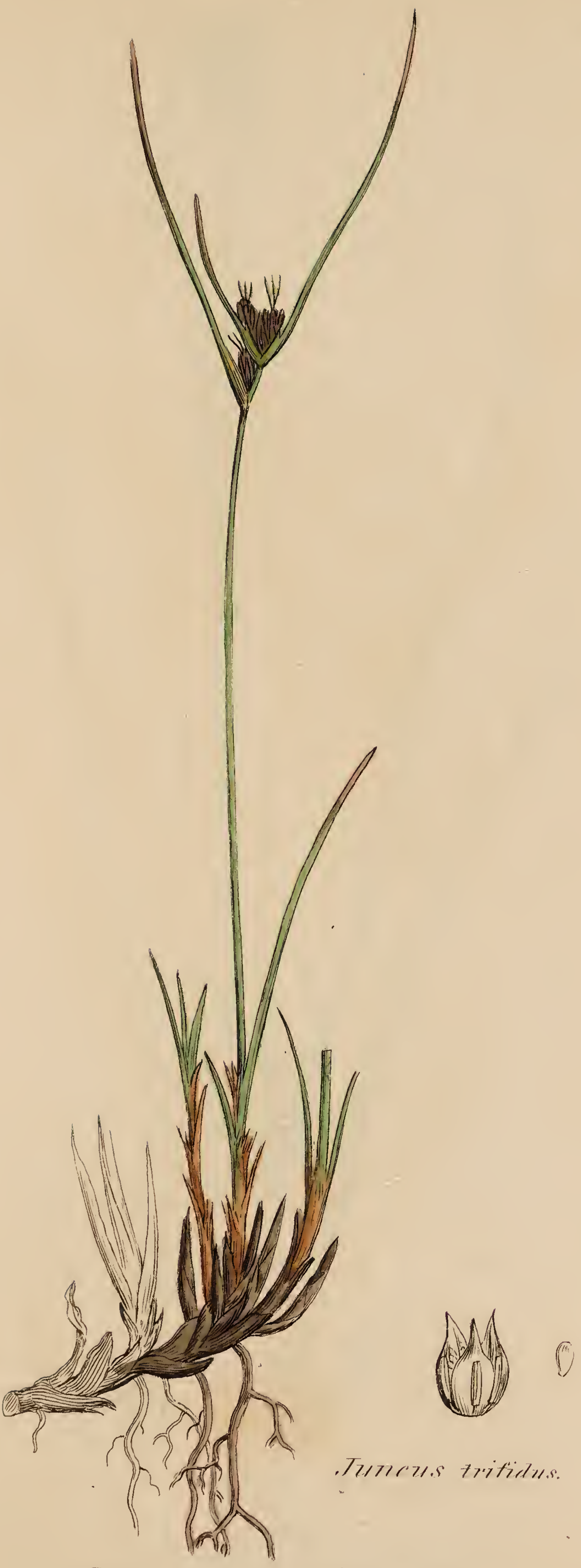


Juncus bufonius.

[illegible]

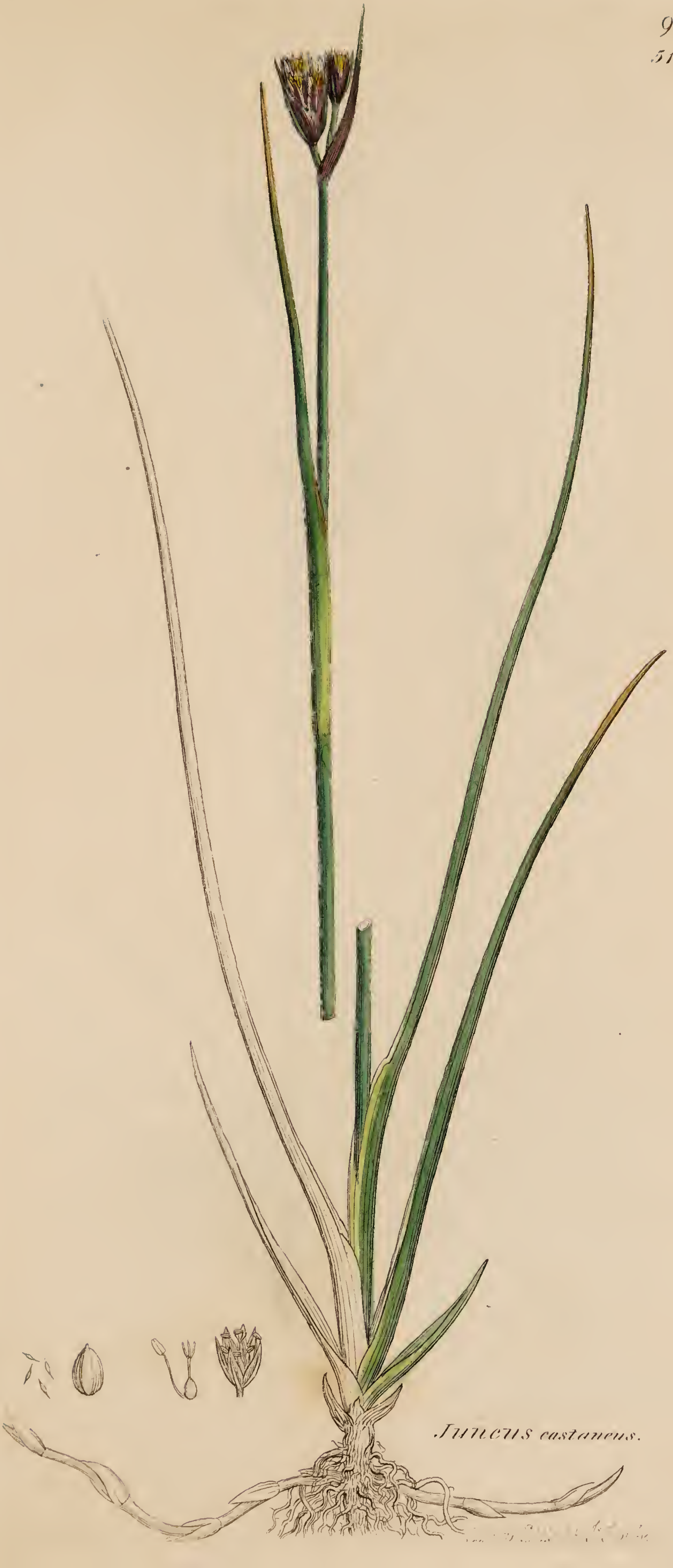
1482

509.



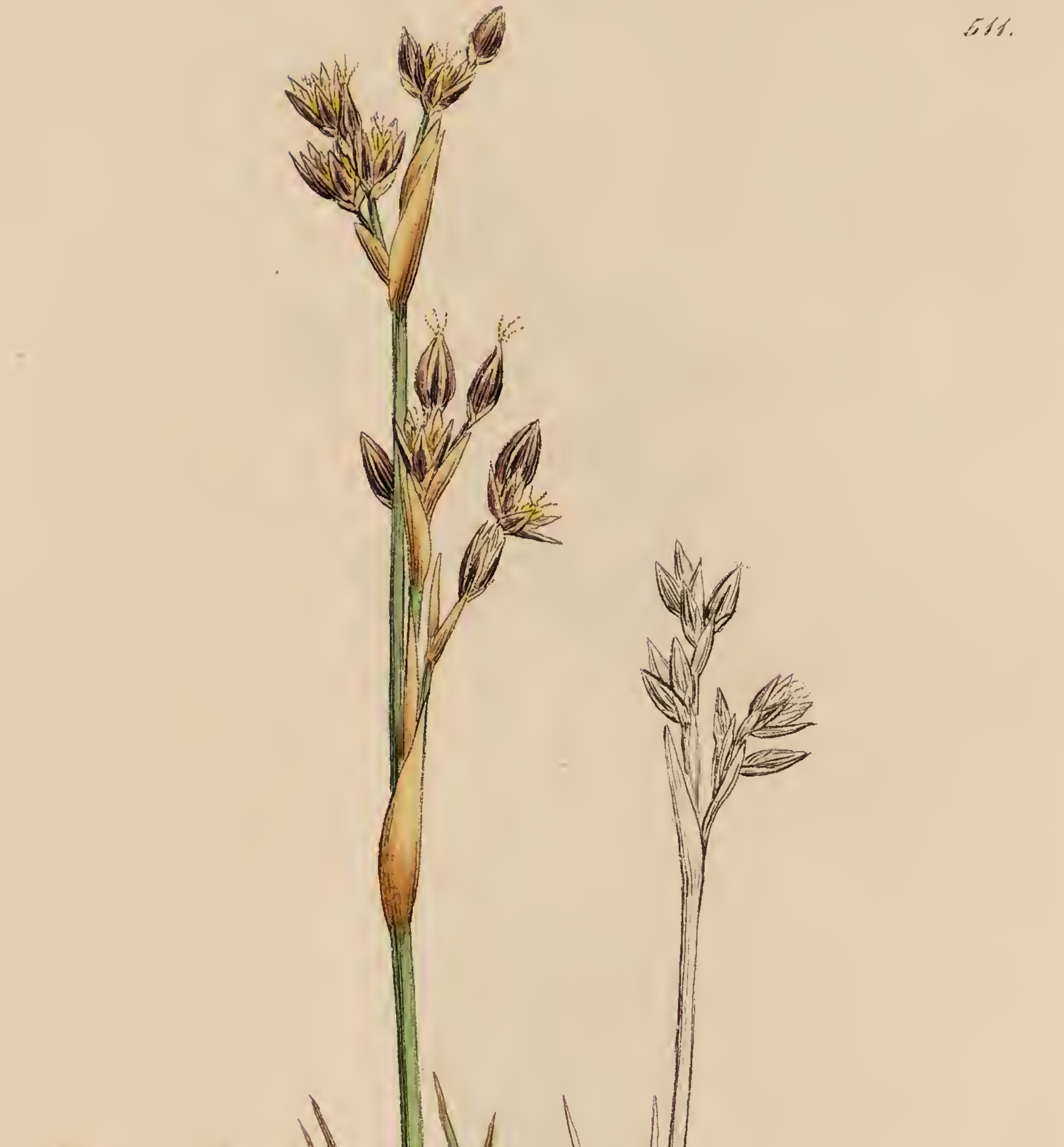
Juncus trifidus.

July 1. 1805. Publiſhed by Jaſ. Sowerby, London.



Juncus castaneus.

933
511.

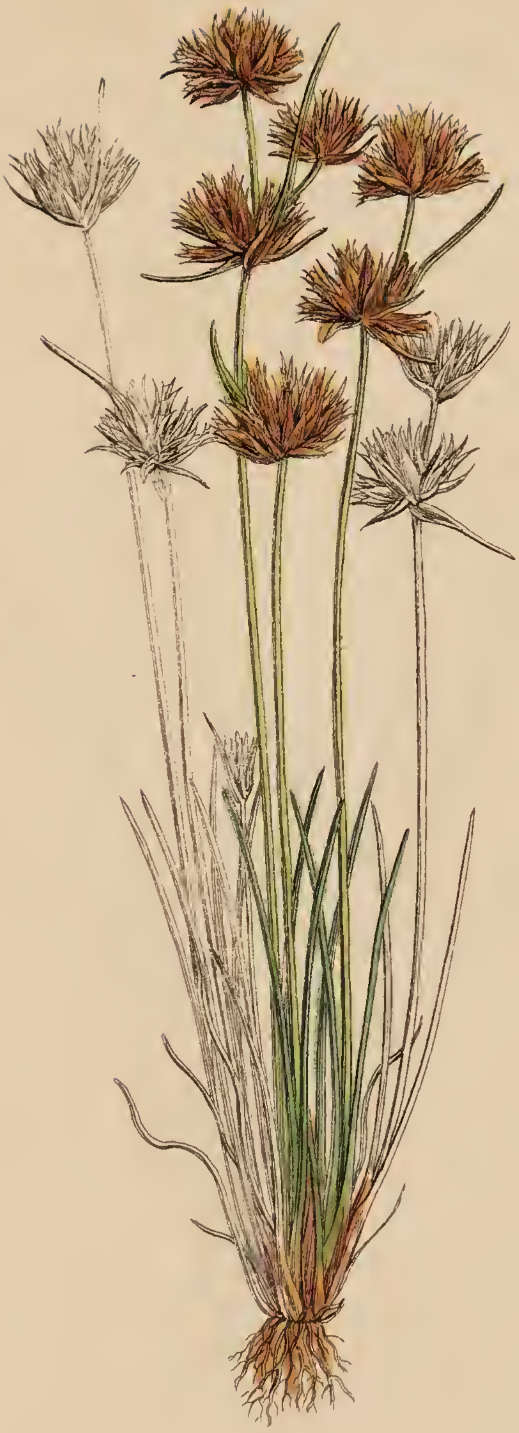


Juncus squarrosus.

Oct. 1. 1801. Published by Jas. Sowerby, London.

2644.

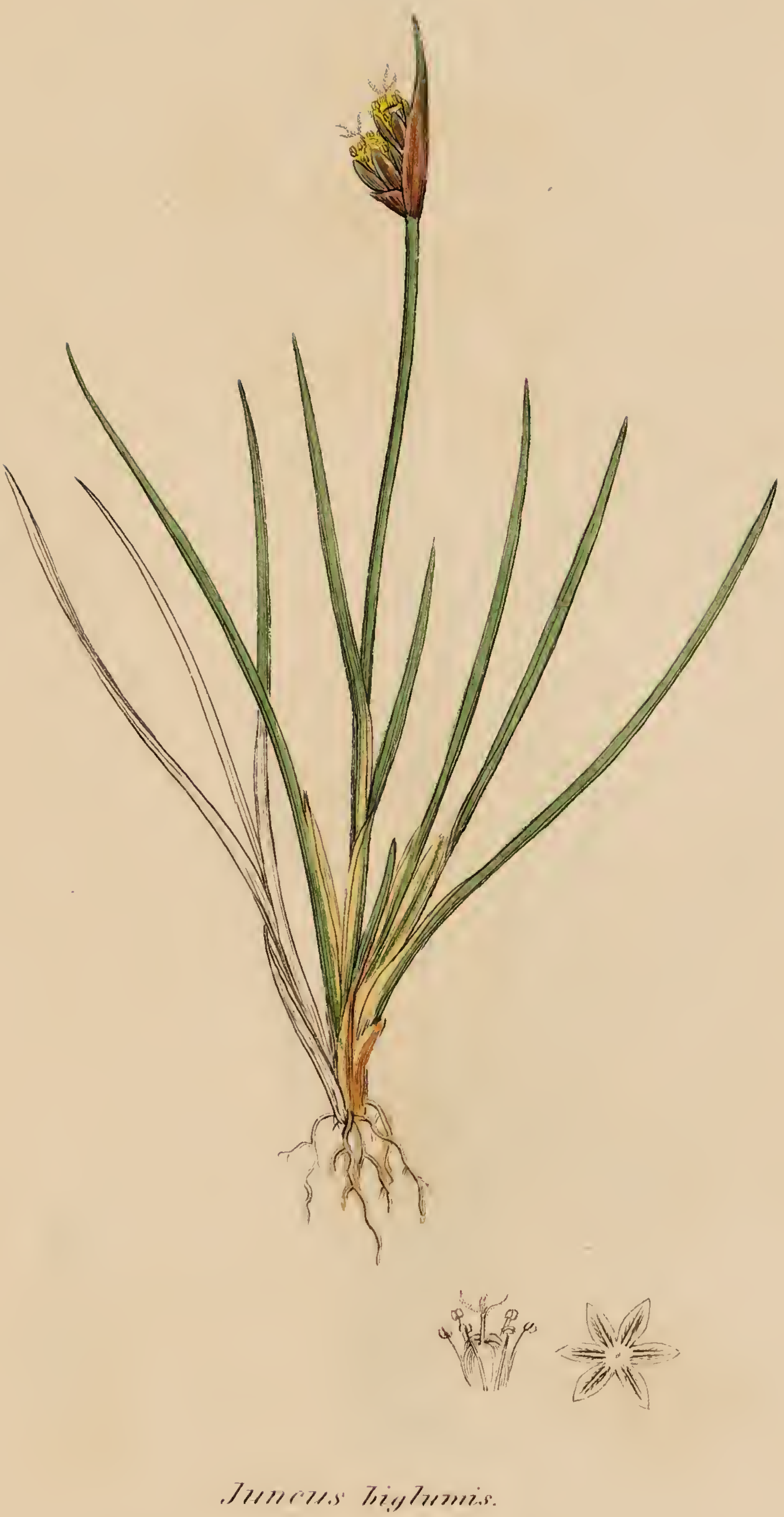
511*



June 1st 1836

898

512.

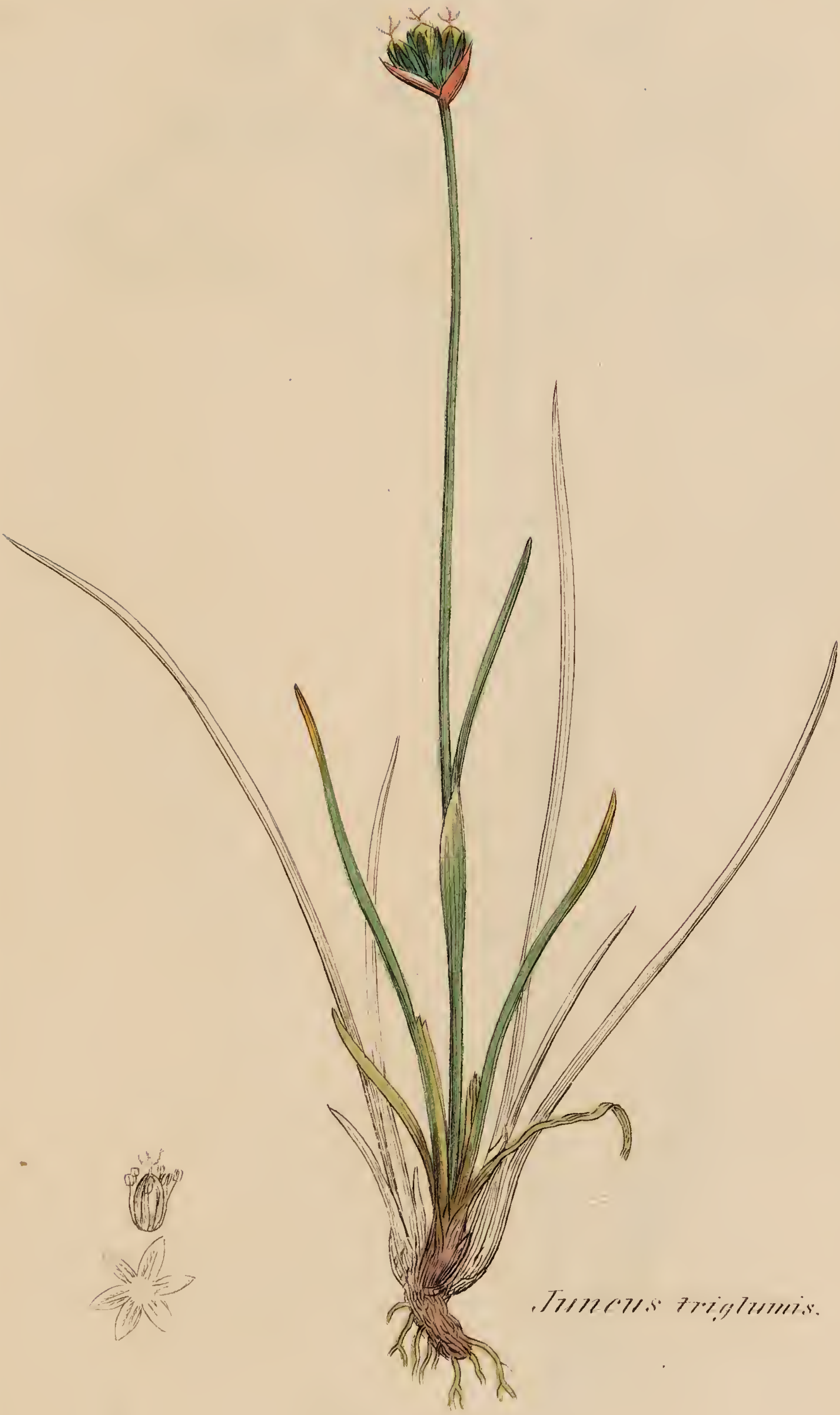


Juncus biglumis.

Jy 1 1801. Publiſhed by Jas. Sowerby. London.

899

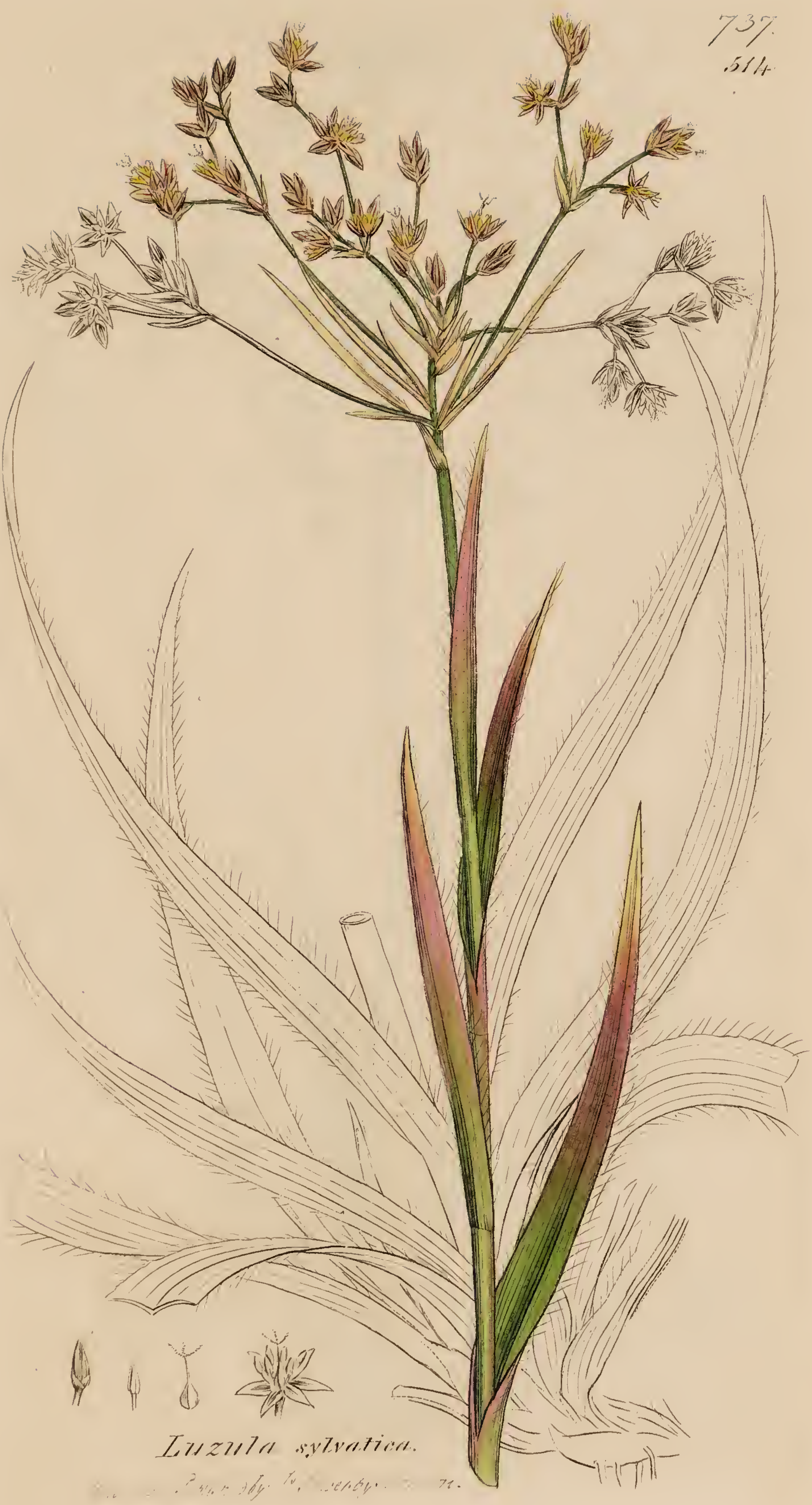
.513.



Juncus triglumis.

July 1. 1801 Published by Jas. Sowerby. London.

737.
514.

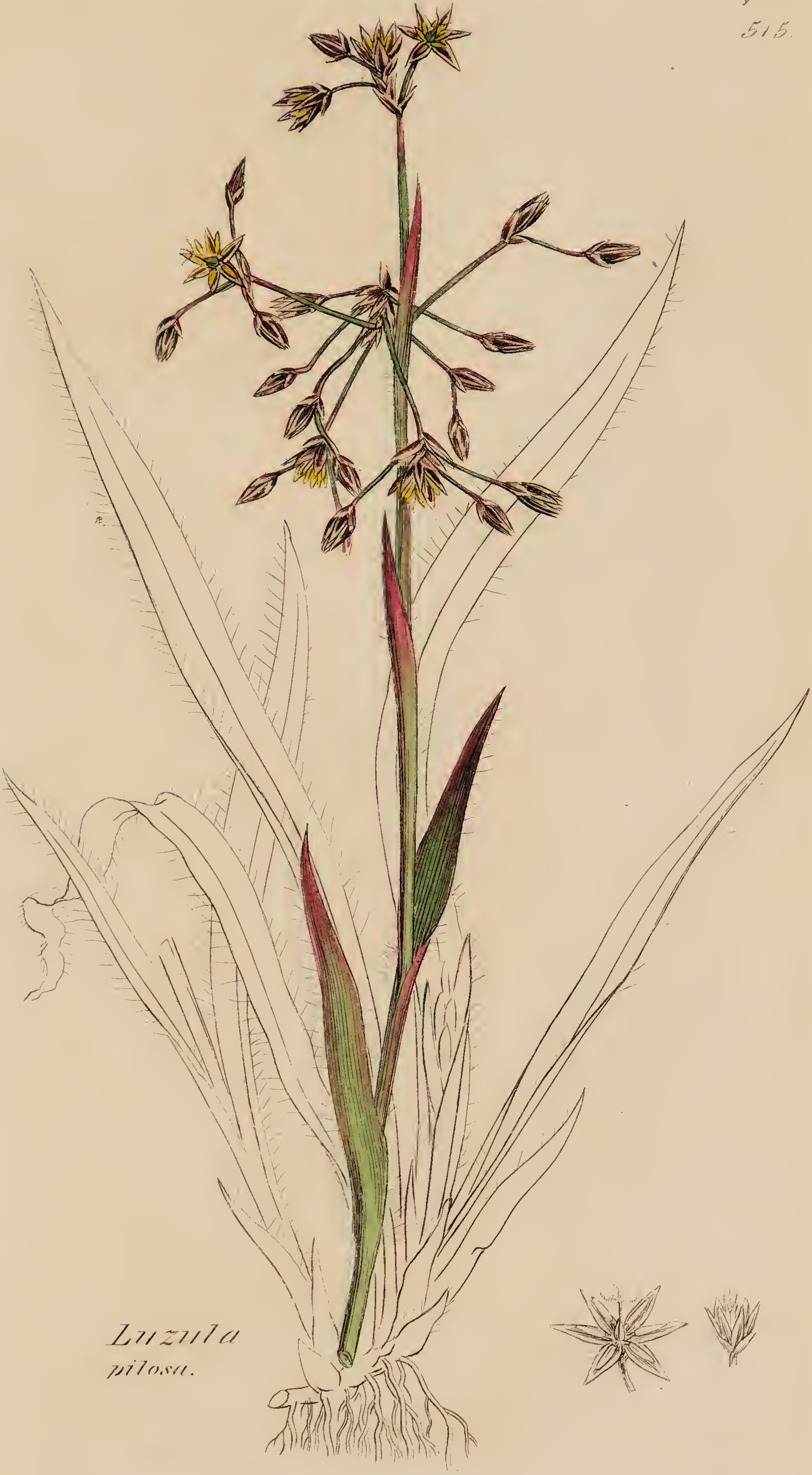


Luzula sylvatica.

[illegible] Pub. by Jn. Sowerby [illegible]n.

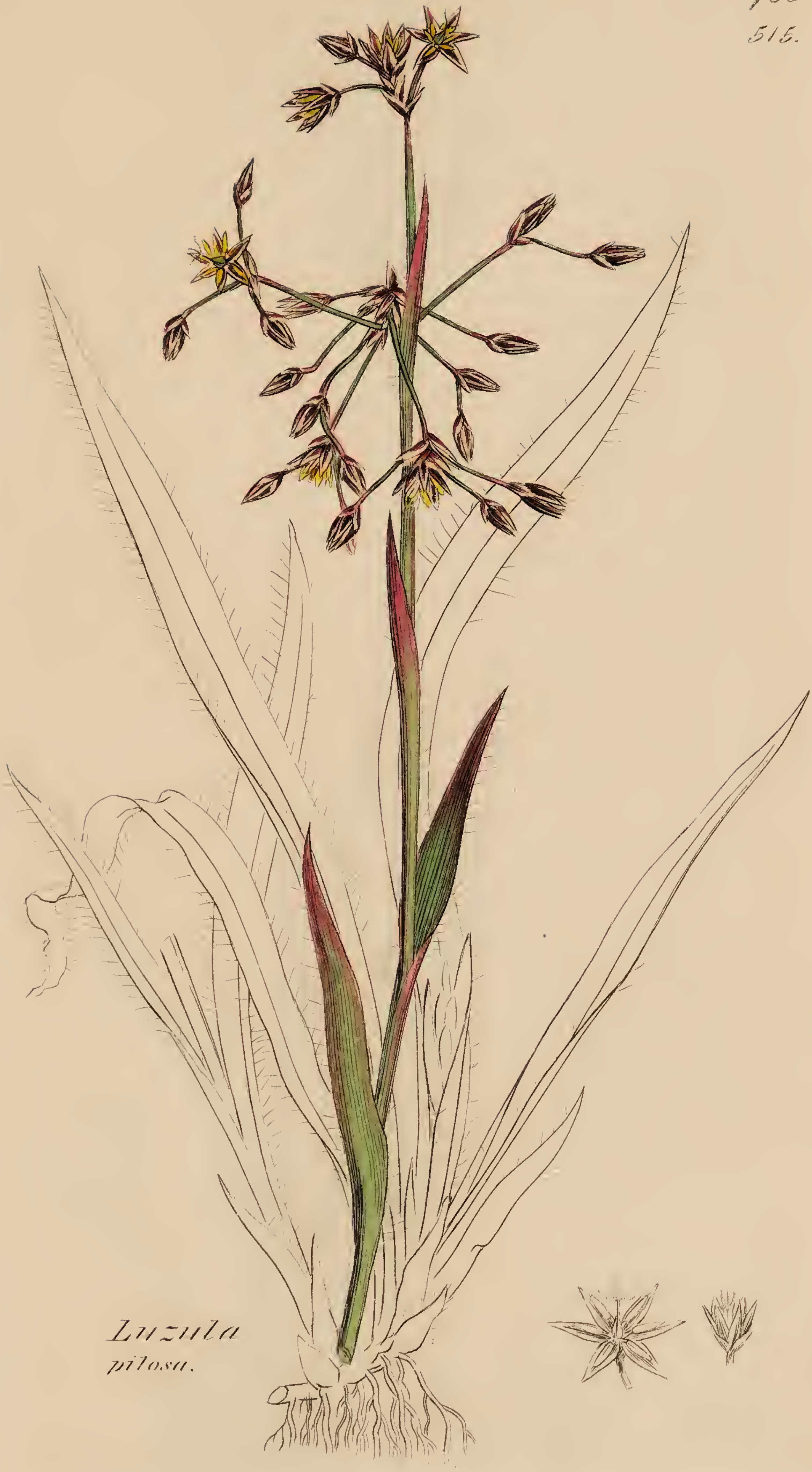
736

515.



Luzula
pilosa.

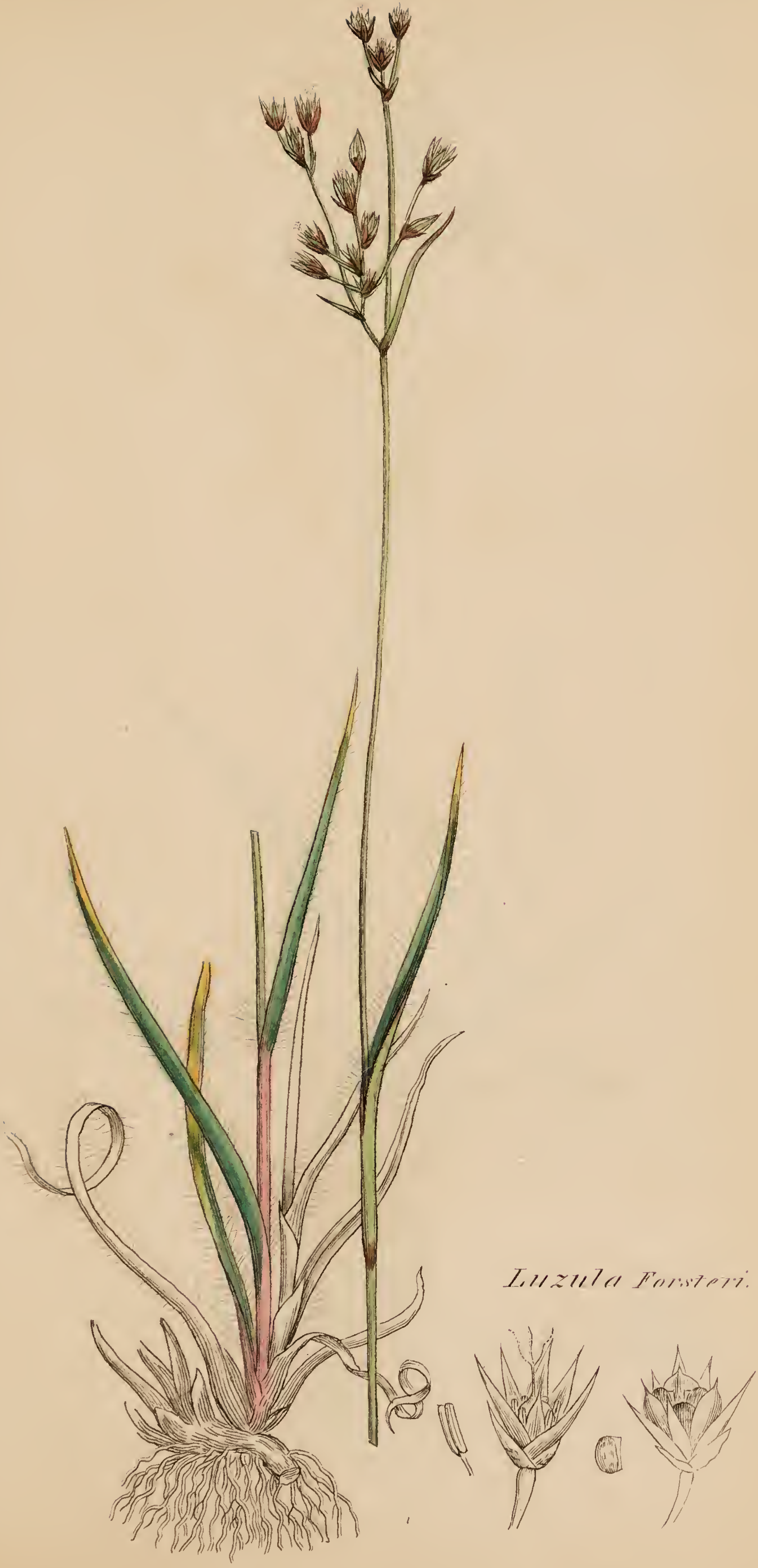
730
515.



Luzula
pilosa.

1293

516.

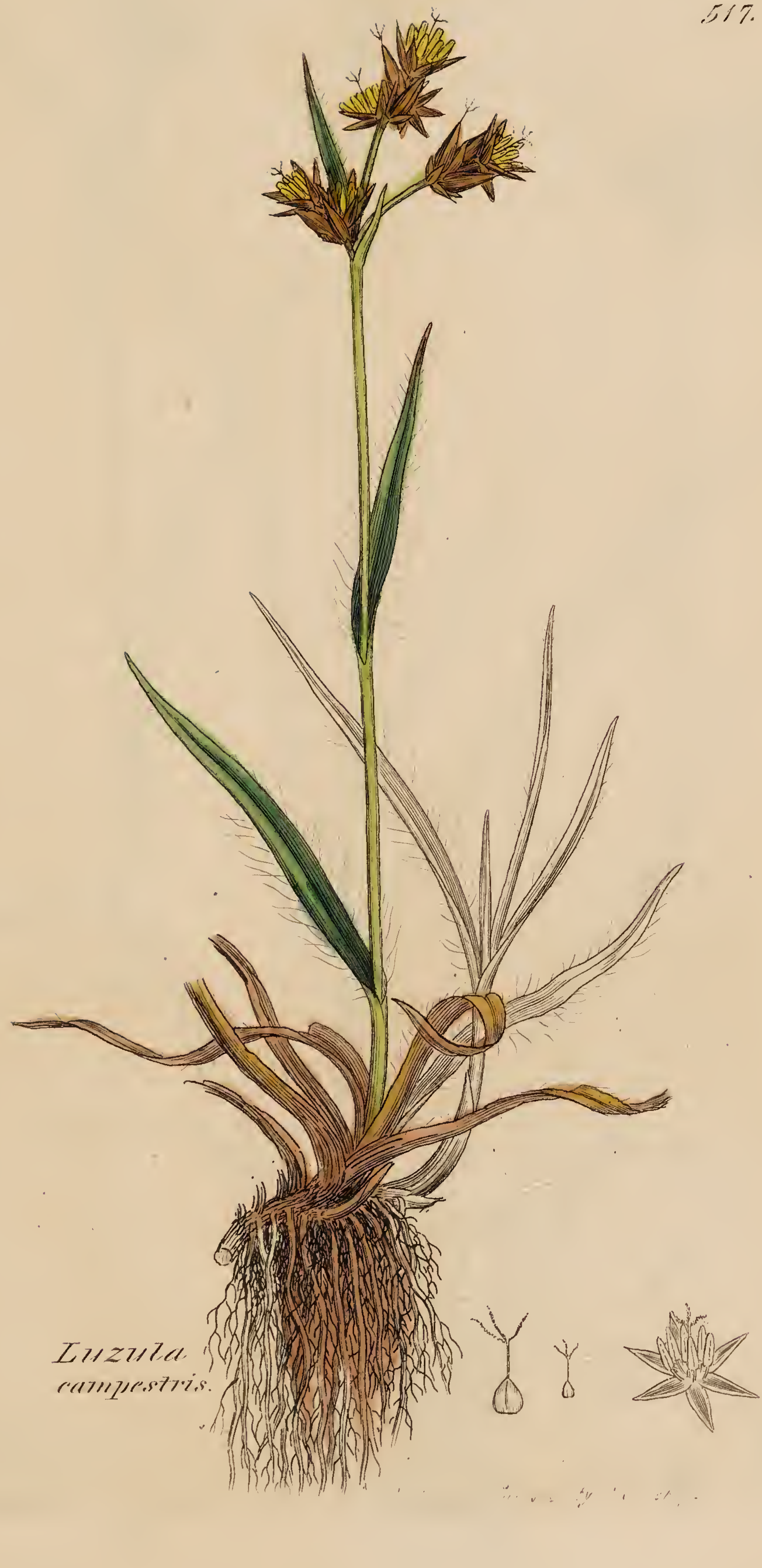


Luzula Forsteri.

April 1. 1804. Publiſhed by Jas Sowerby London

672.

517.

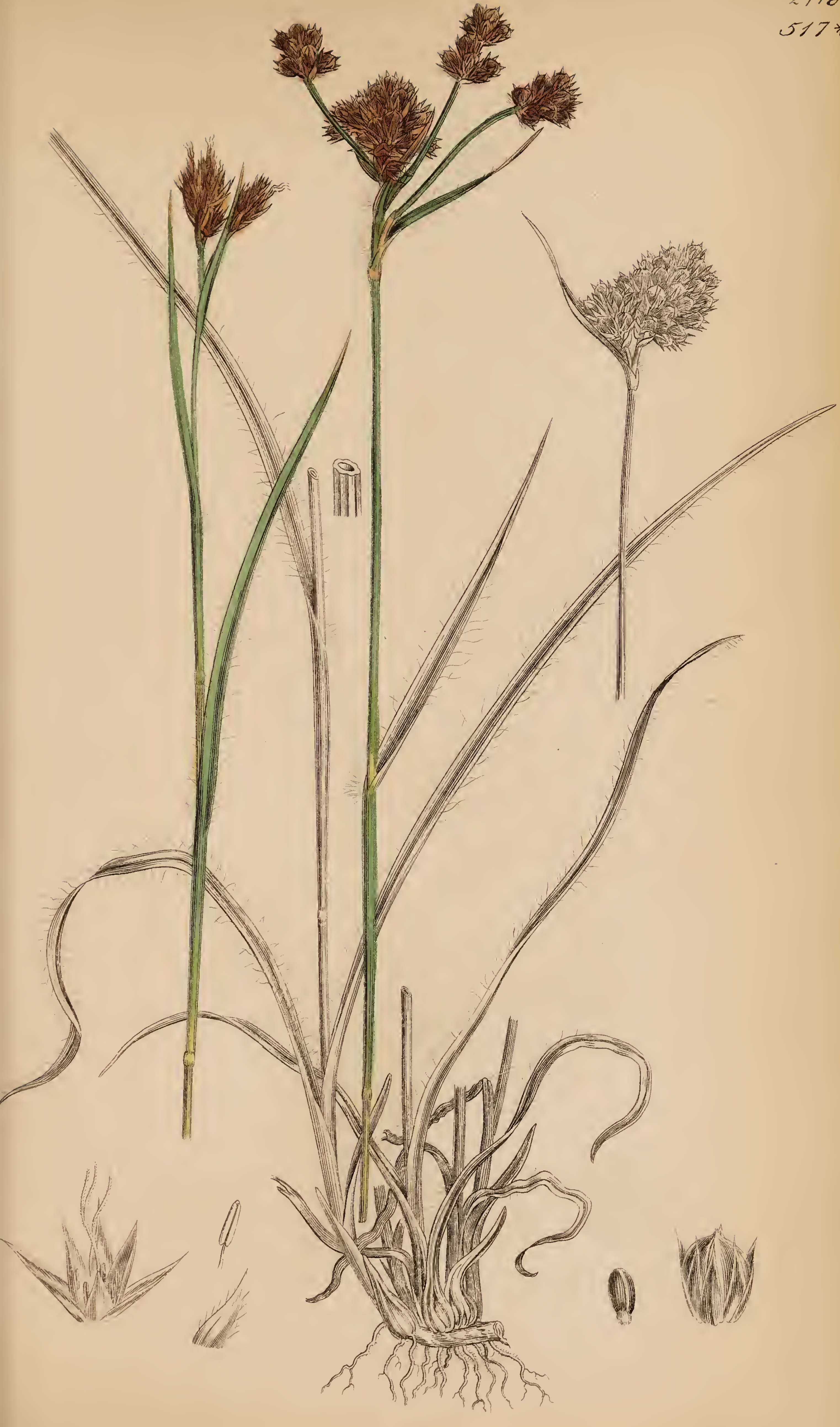


Luzula campestris.

[illegible]

2718.

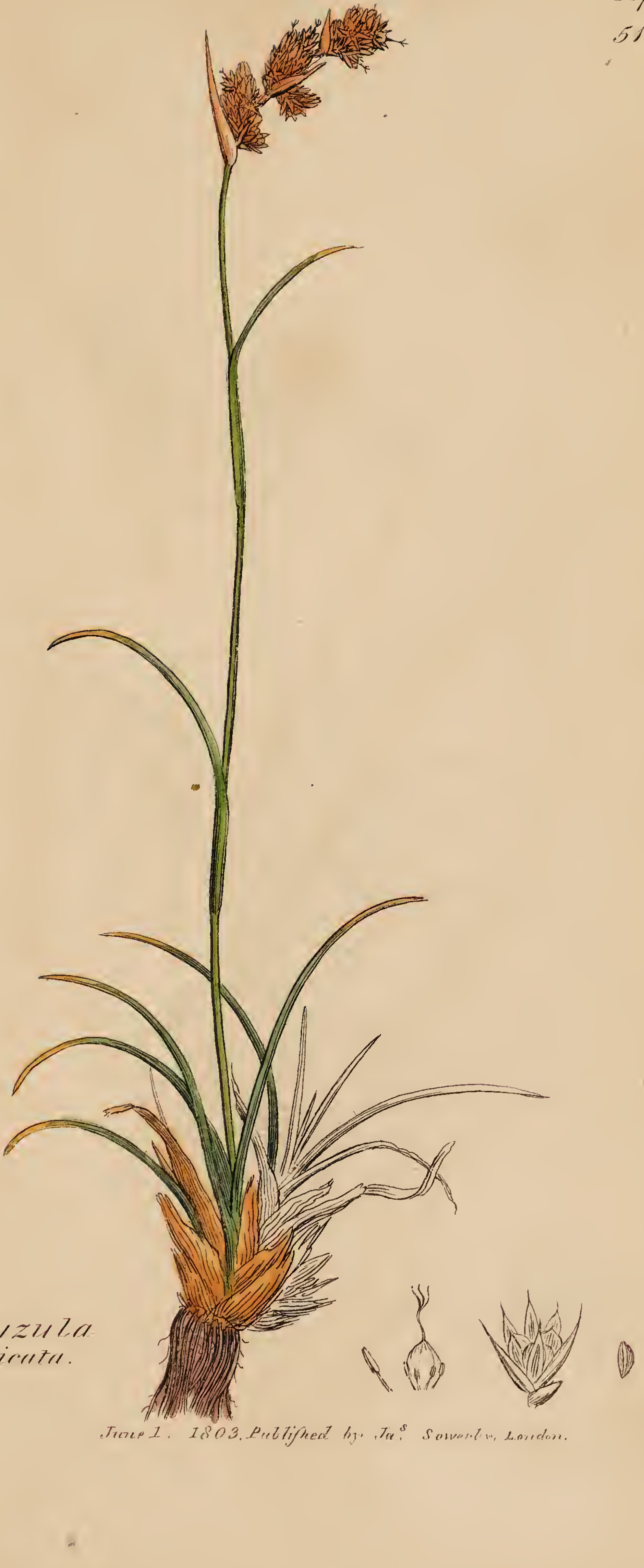
517*



November 1st 1831.

1176

518.

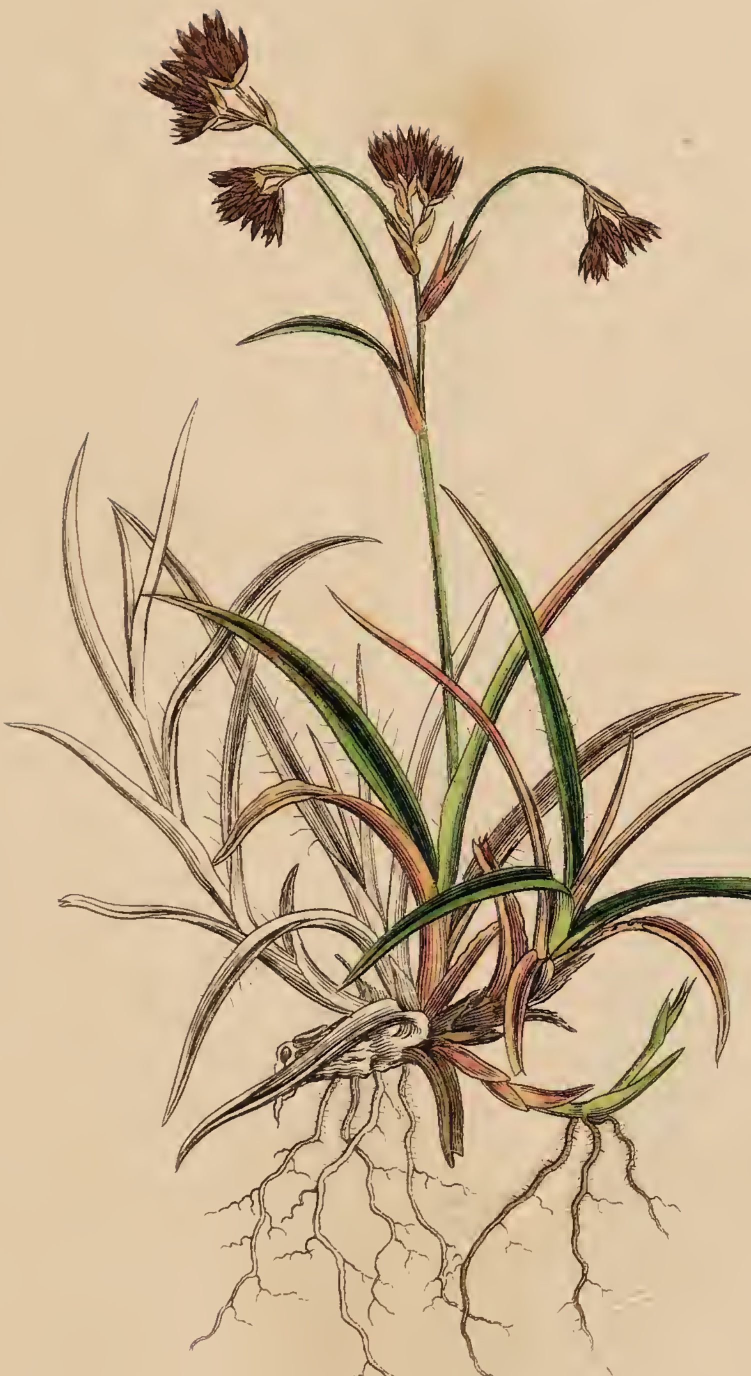


Luzula spicata.

June 1. 1803. Published by Ja^s. Sowerby, London.

2688.

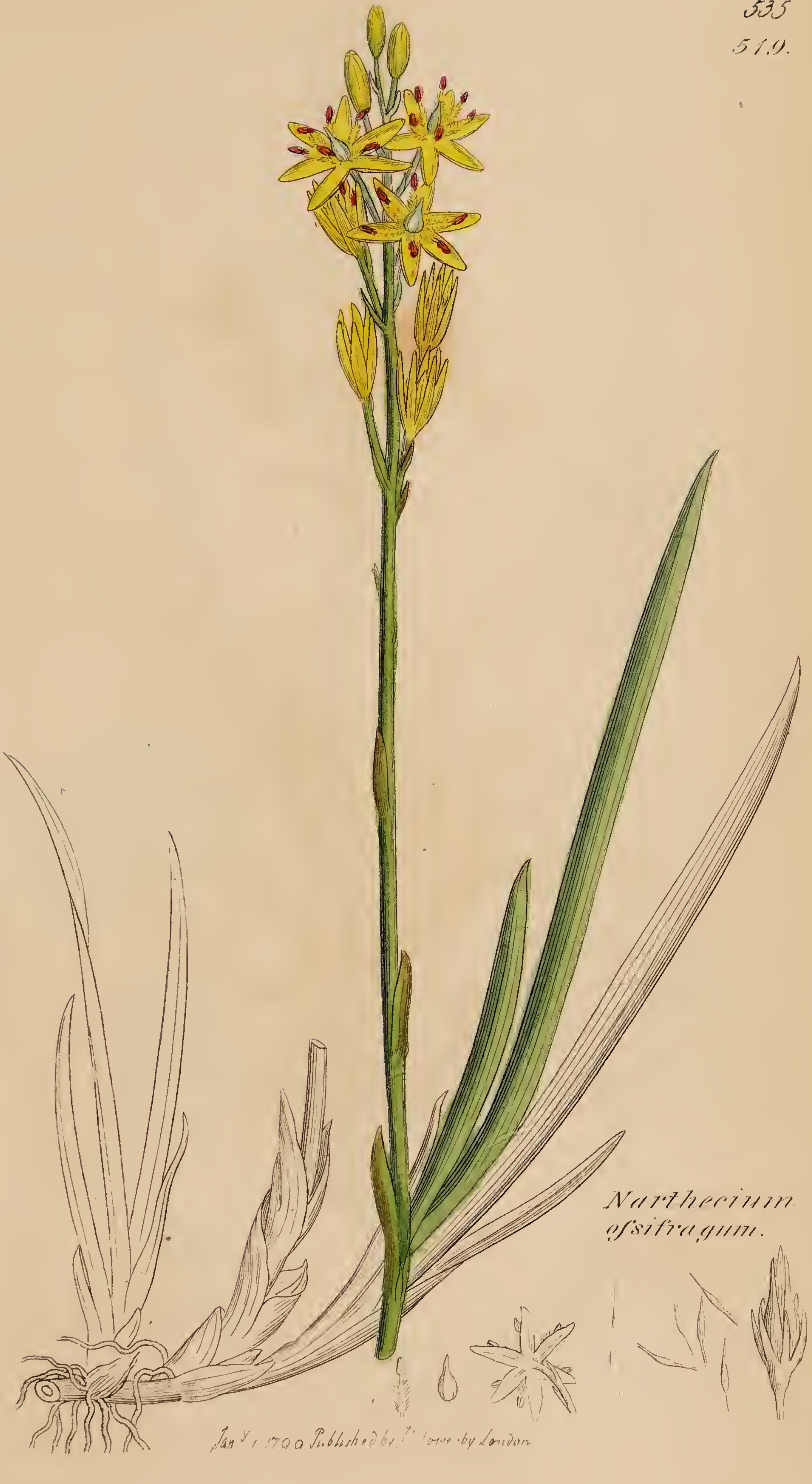
518*



April 1st 1831.

535

519.

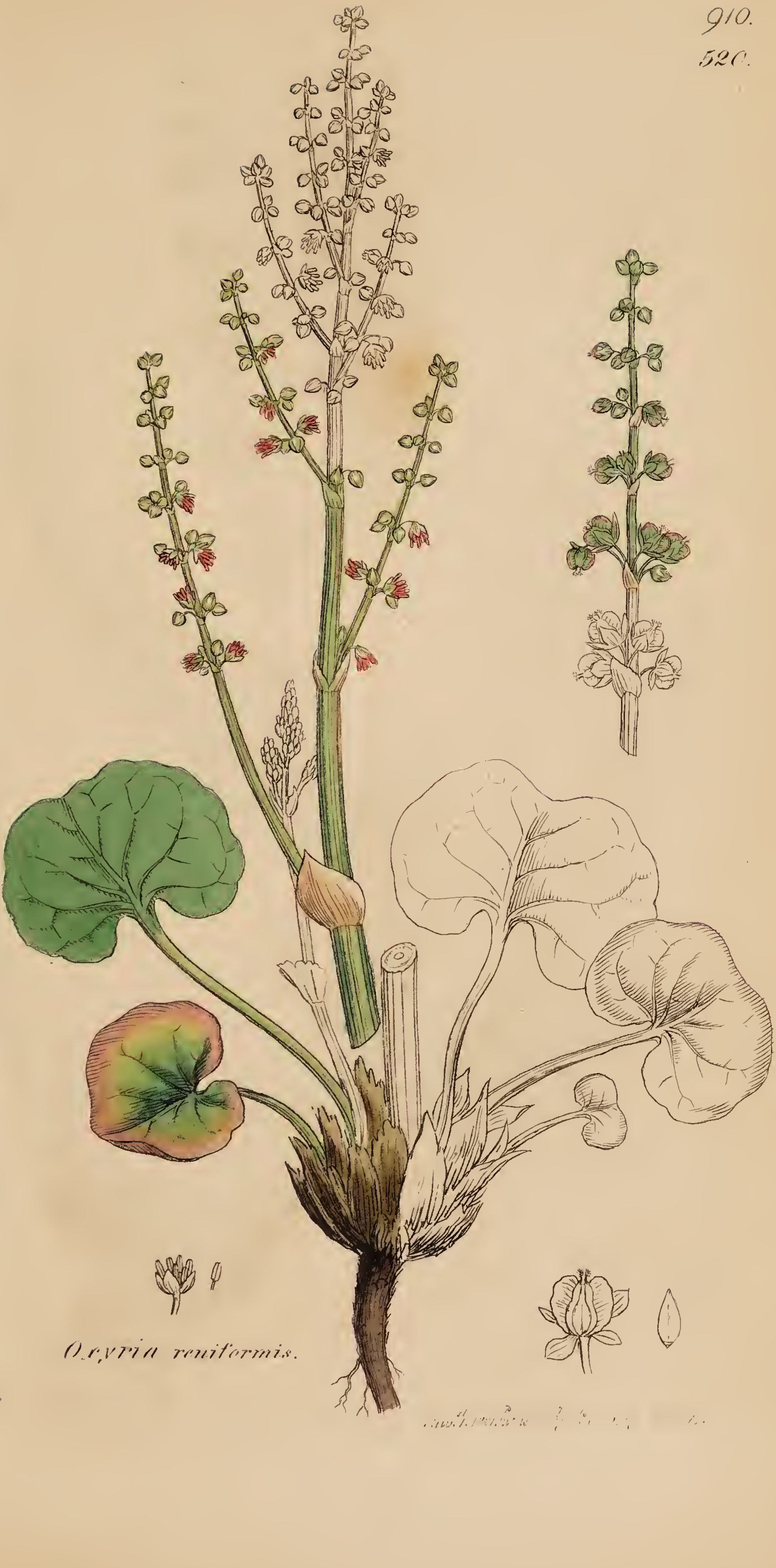


Narthecium ossifragum.

Jan.y 1, 1799 Published by J. Sowerby London

910.

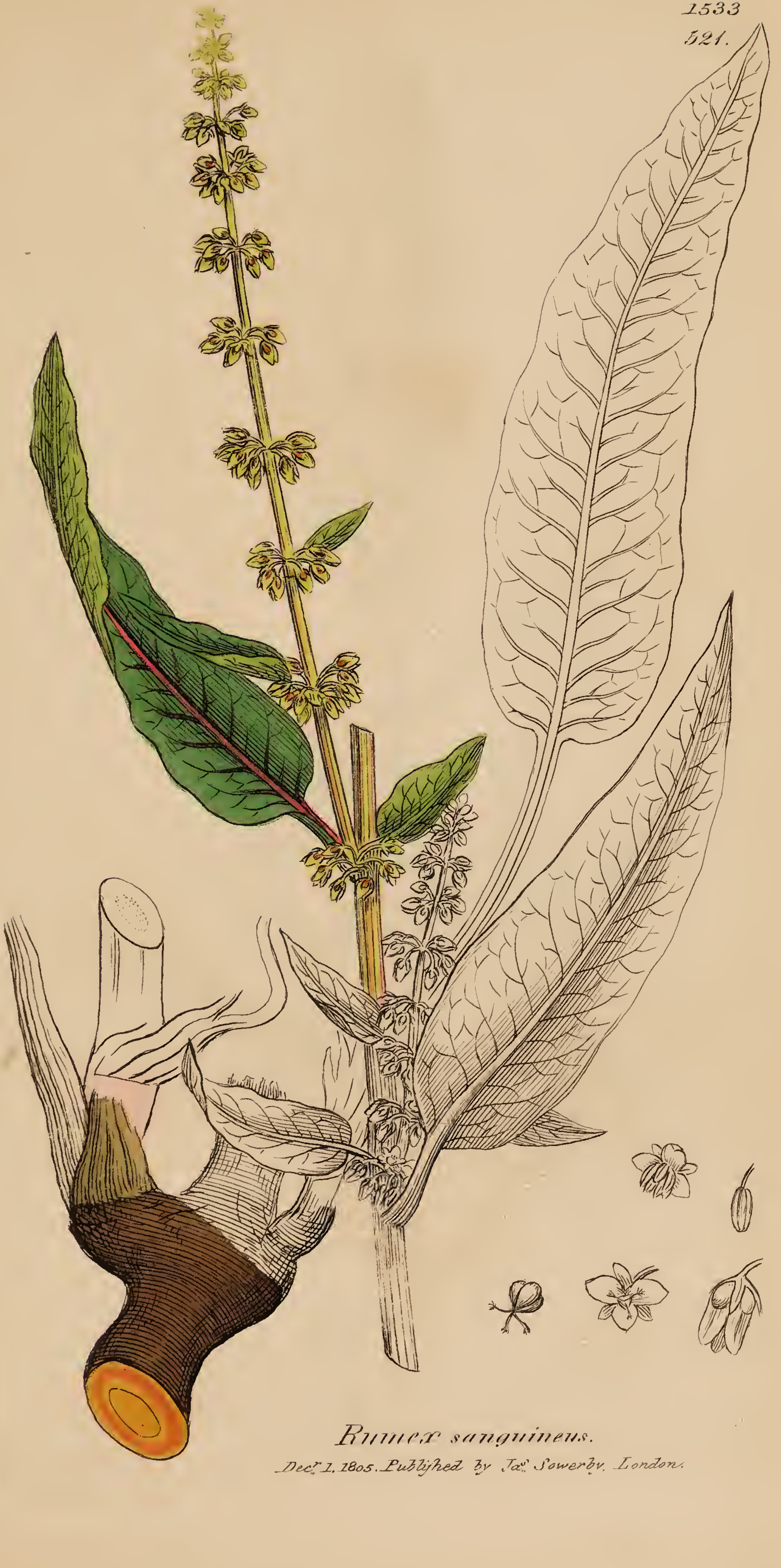
520.



Oxyria reniformis.

1533

521.

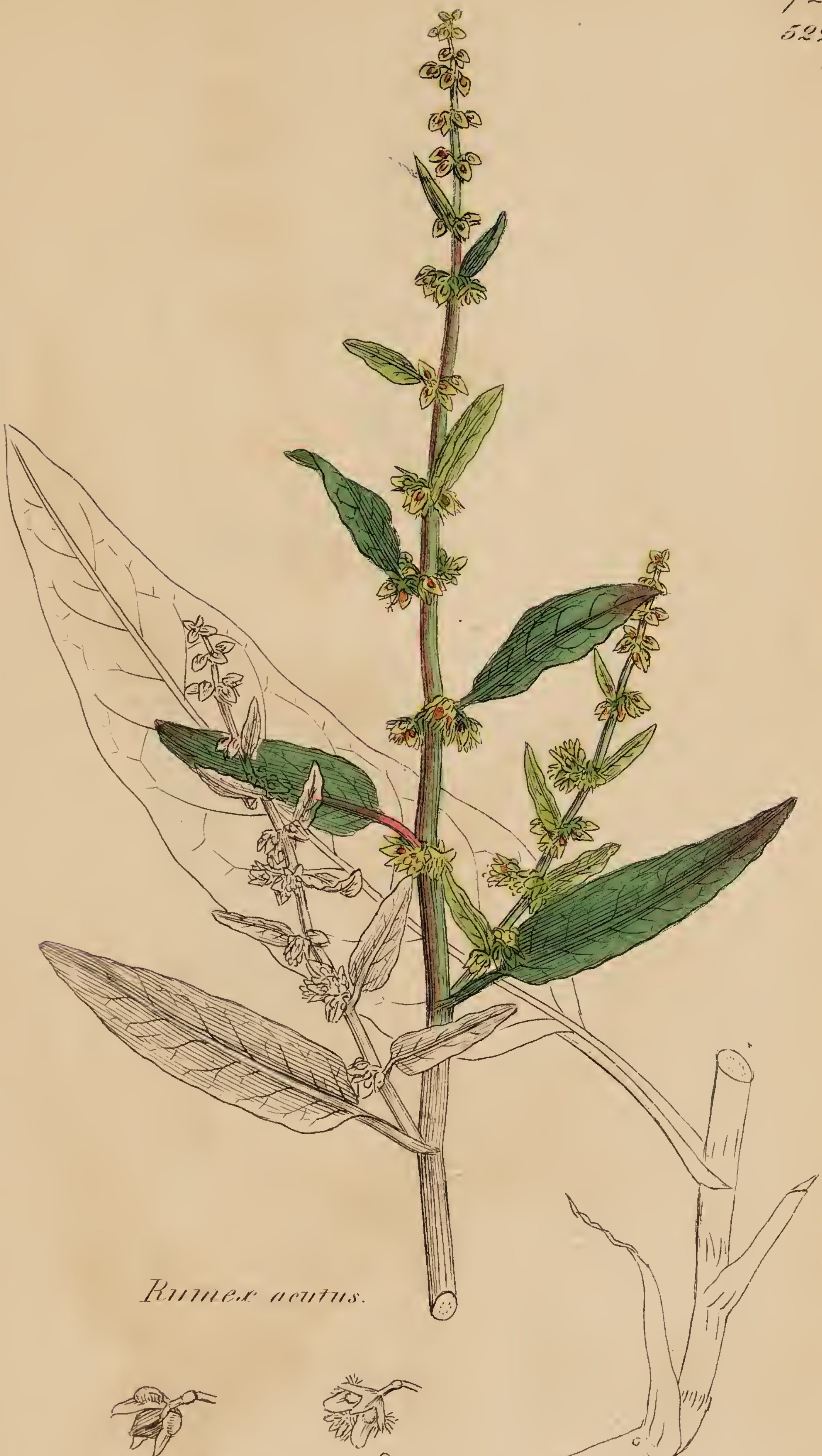


Rumex sanguineus.

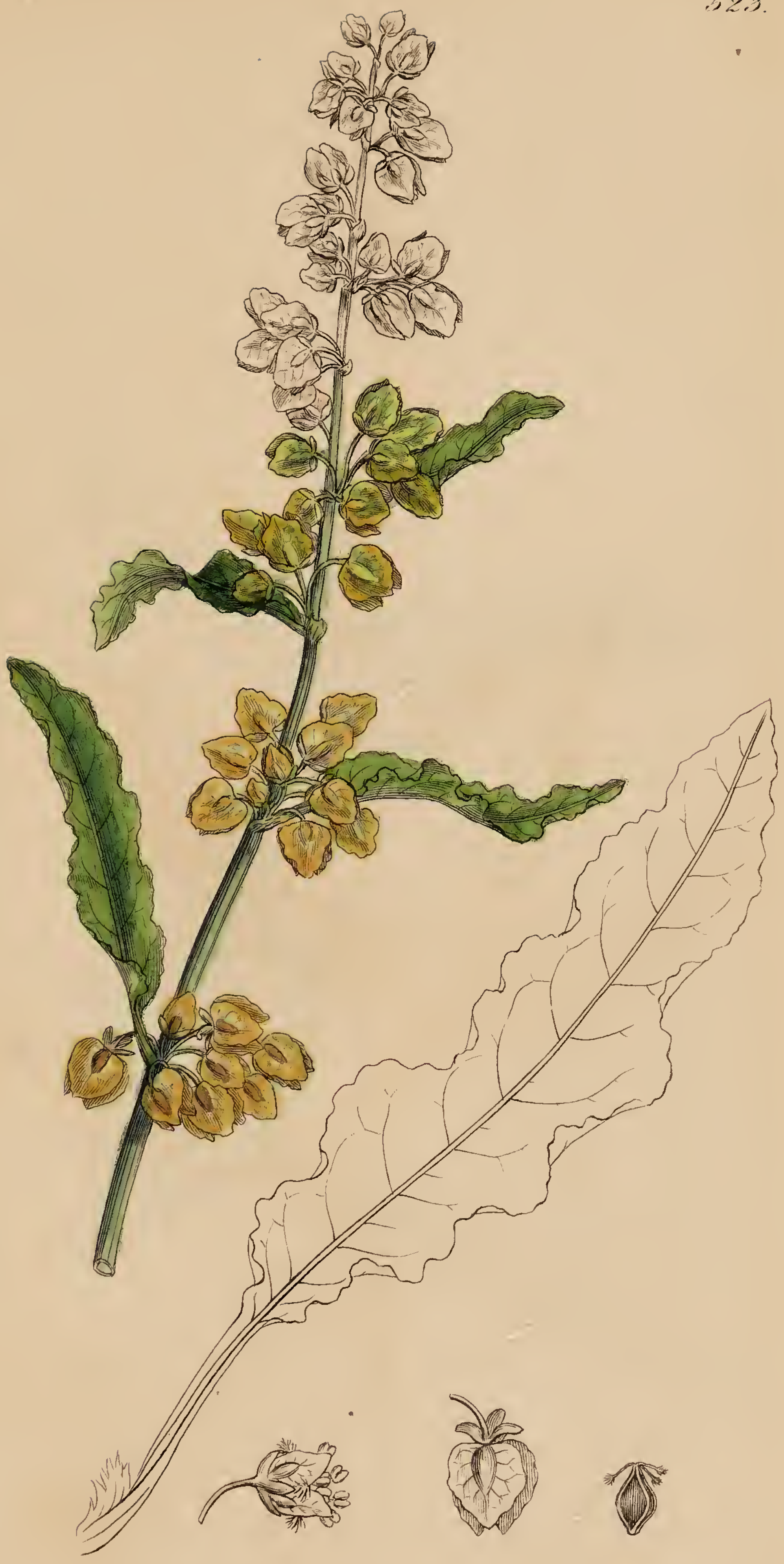
Decr. 1. 1805. Published by Jas. Sowerby, London.

724

522.

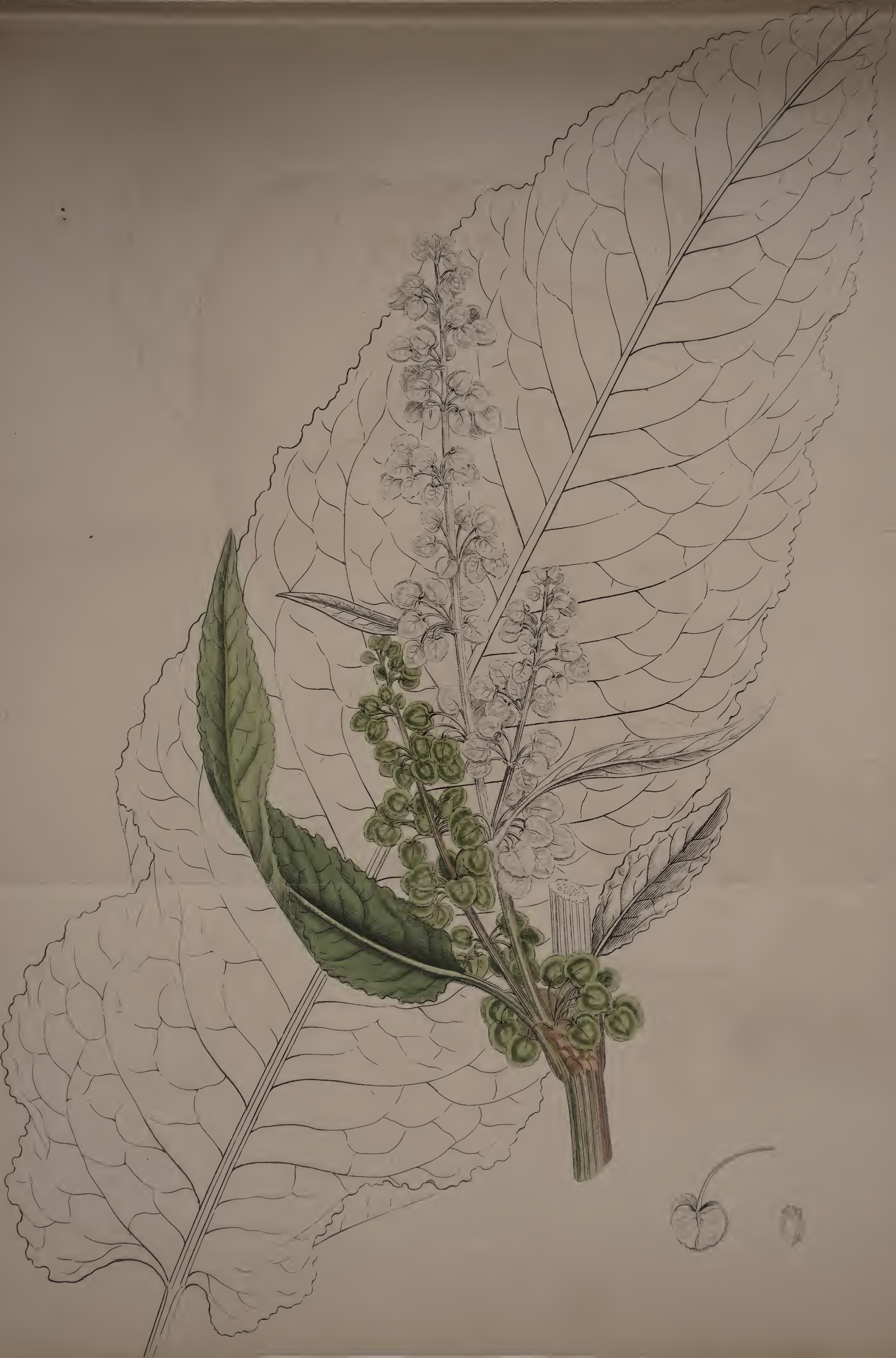


Rumex acutus.

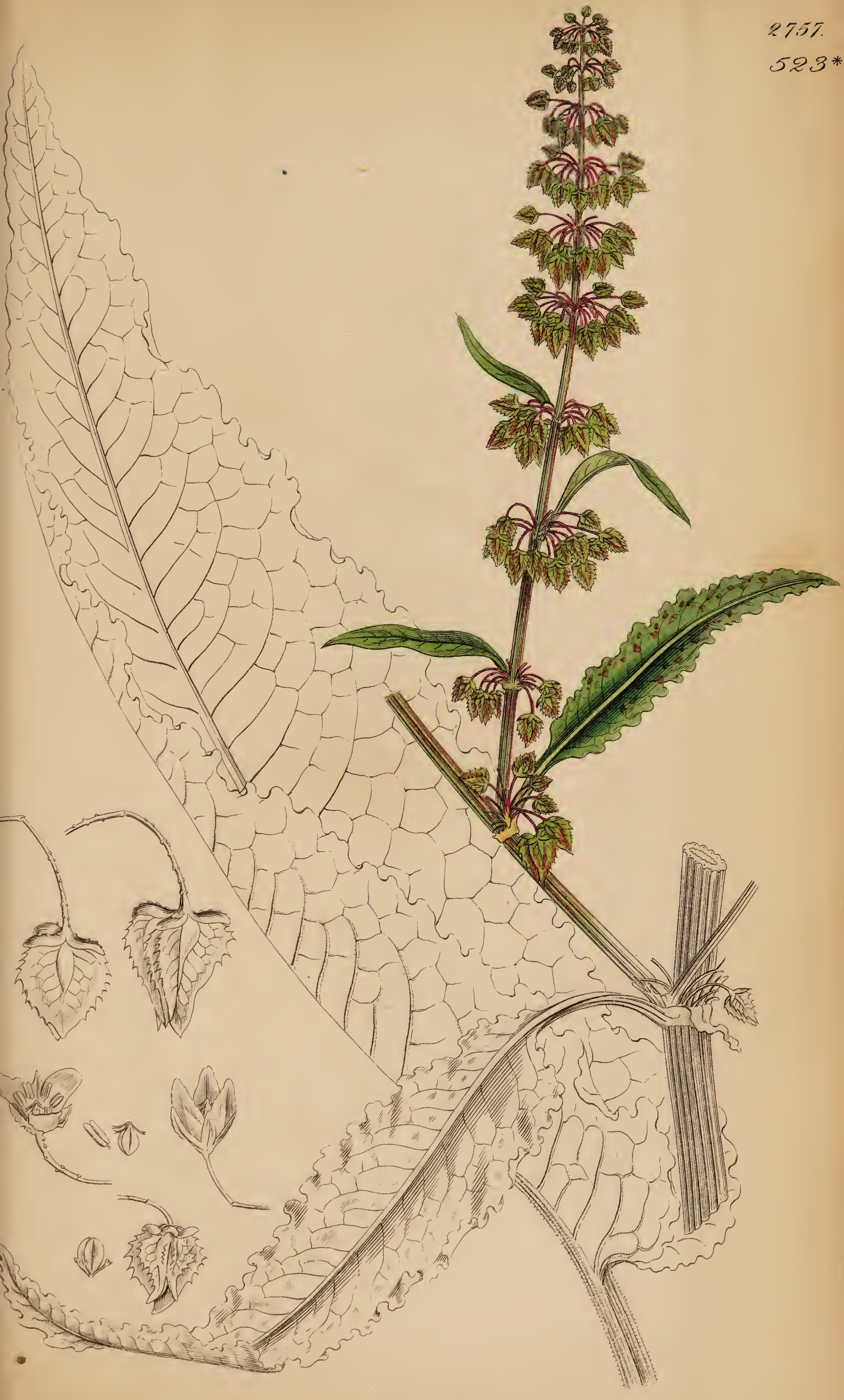


Rumex crispus

Mar 1 1809 Published by Jas Sowerby London



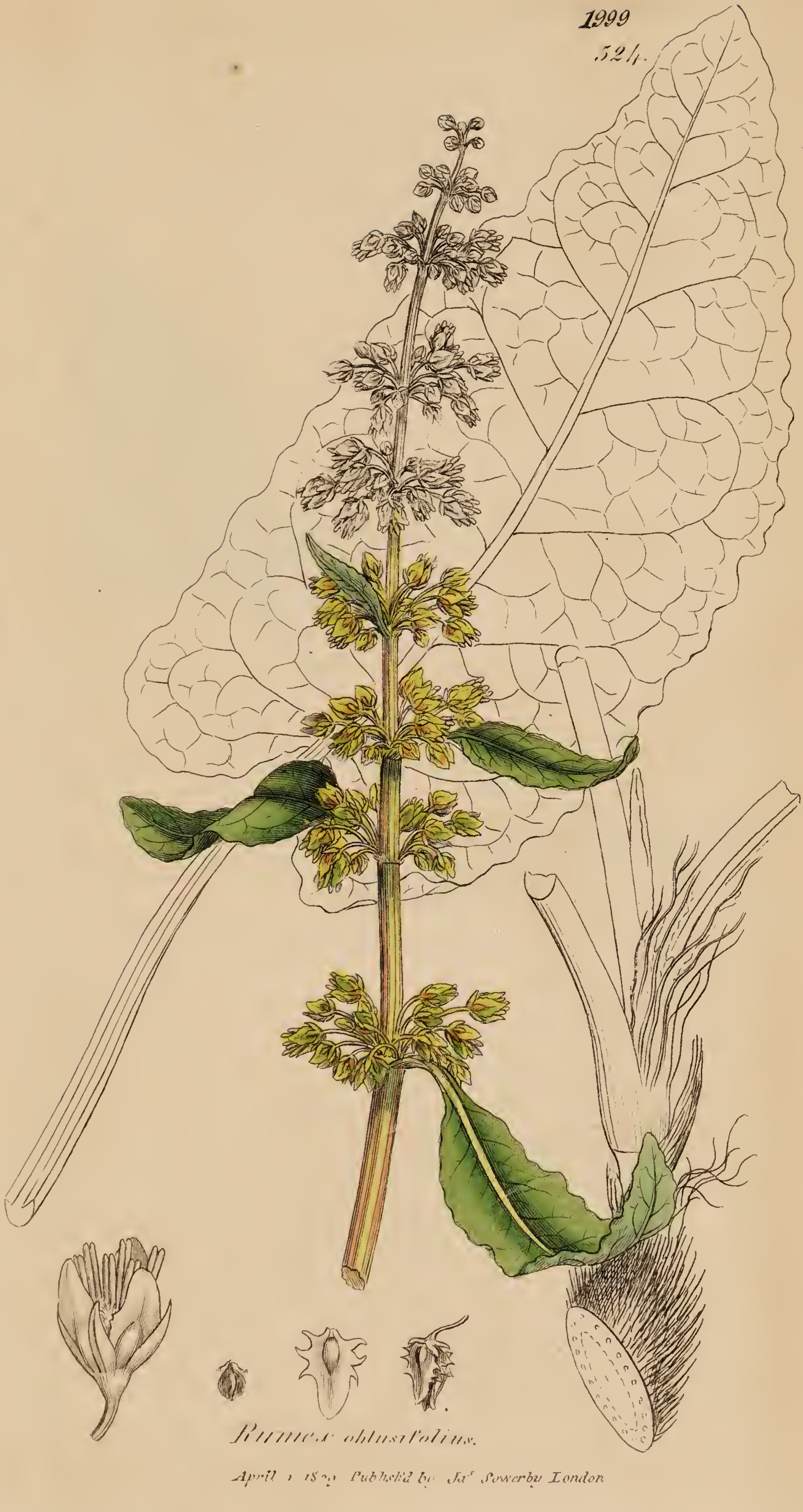
2757.
523*



Decr. 1st. 1832.

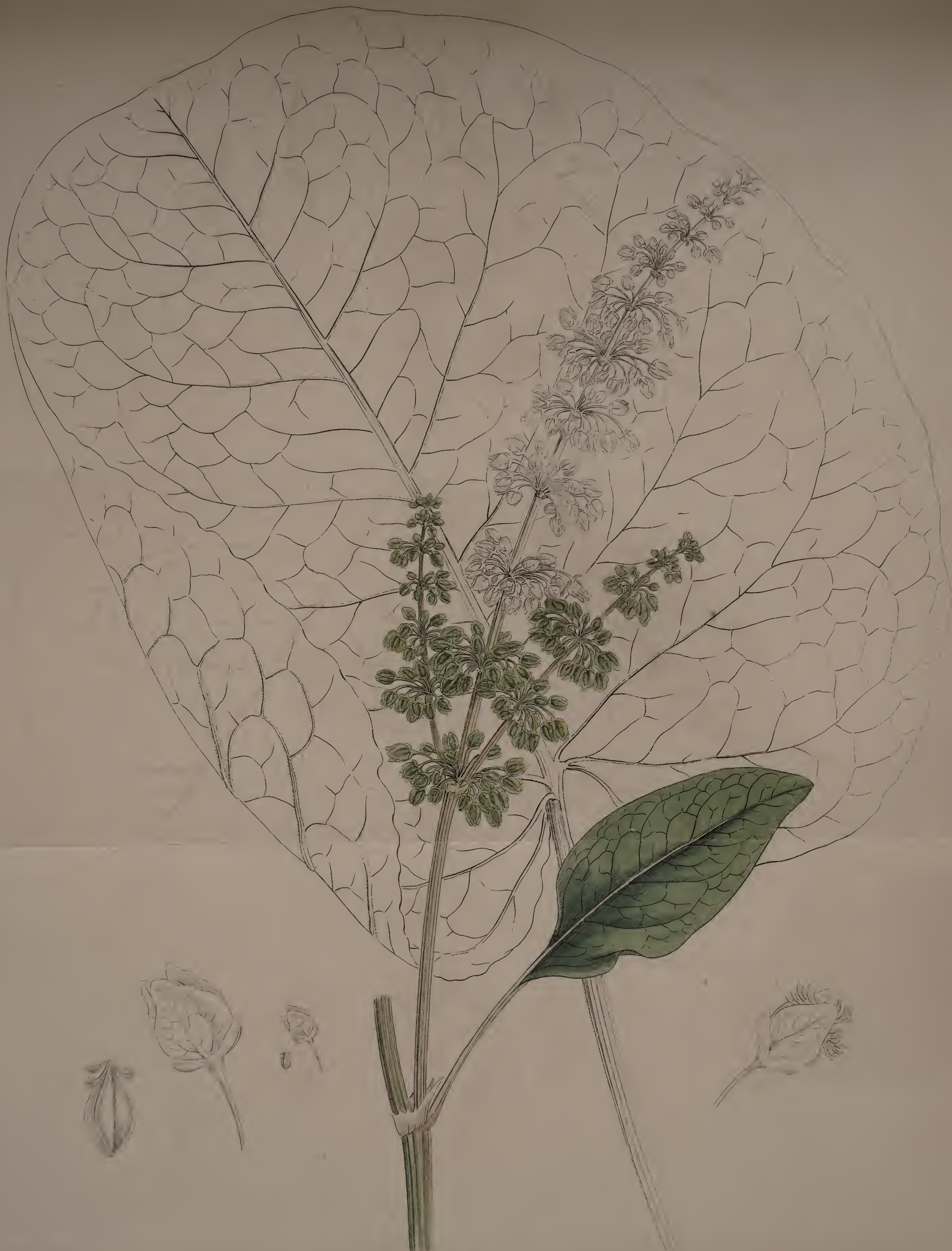
1999

524.

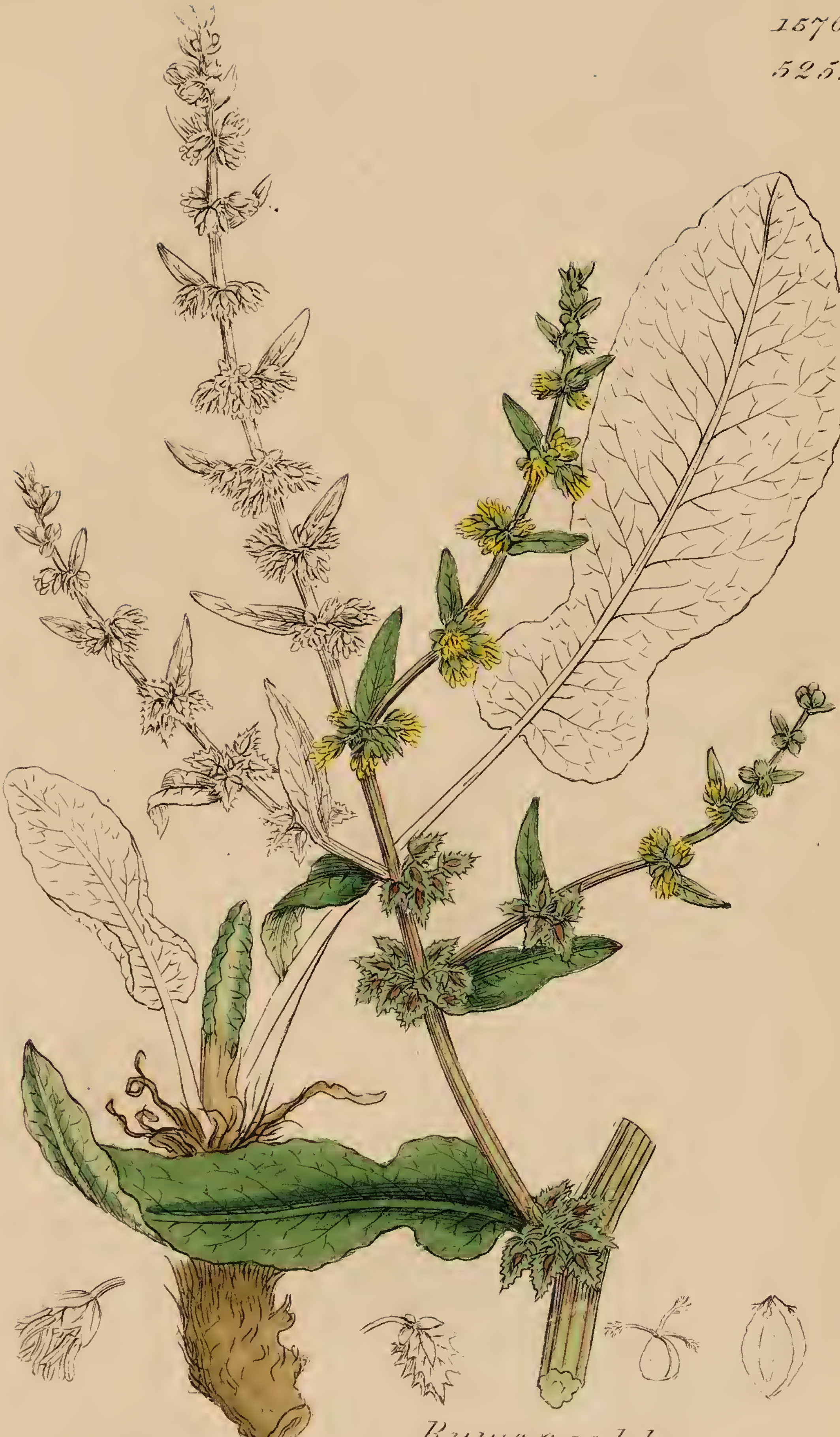


Rumex obtusifolius.

April 1 1809 Publish'd by Jas Sowerby London



1576
525.

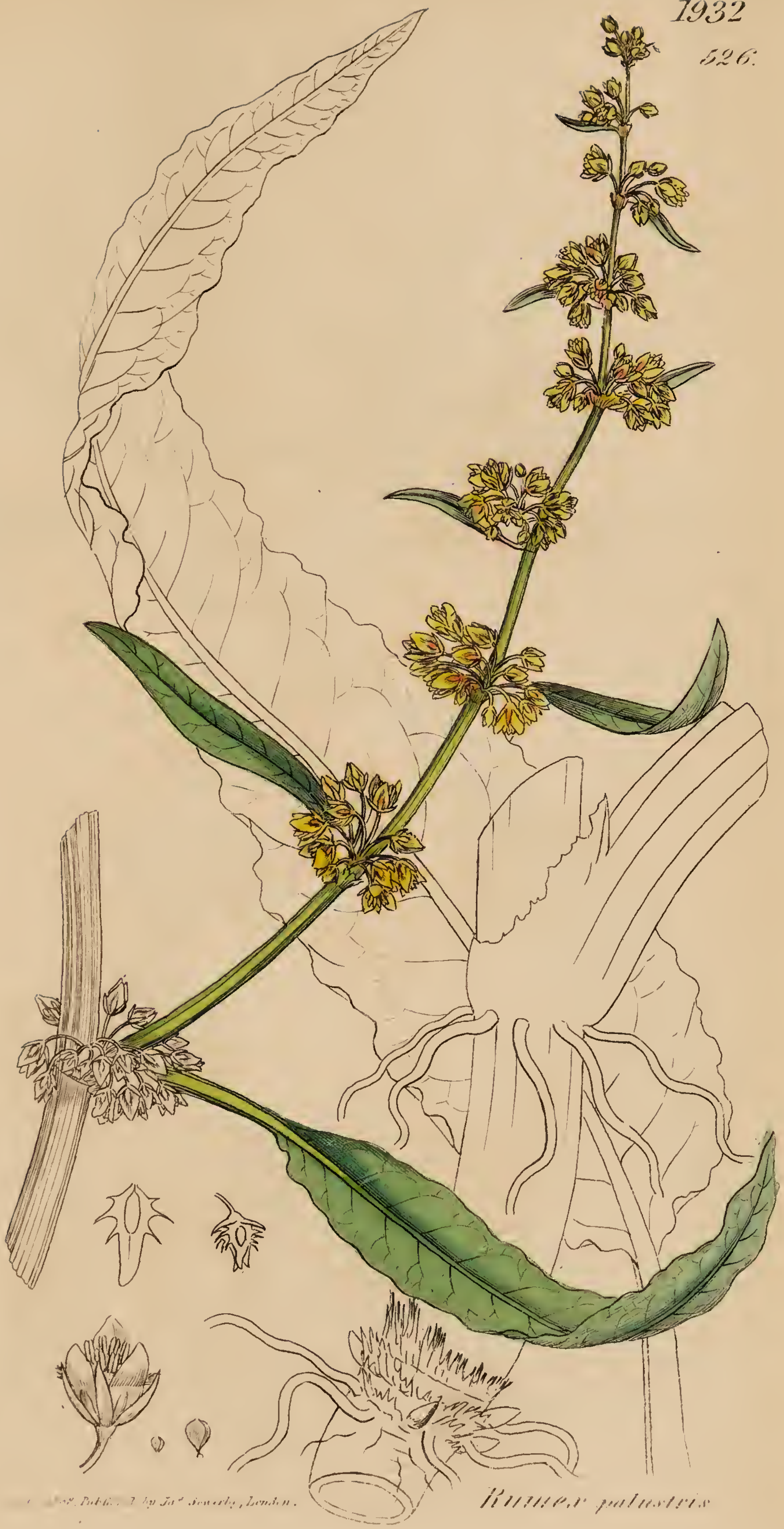


Rumex pulcher.

March 1 1806. Published by Jas. Sowerby. London.

1932

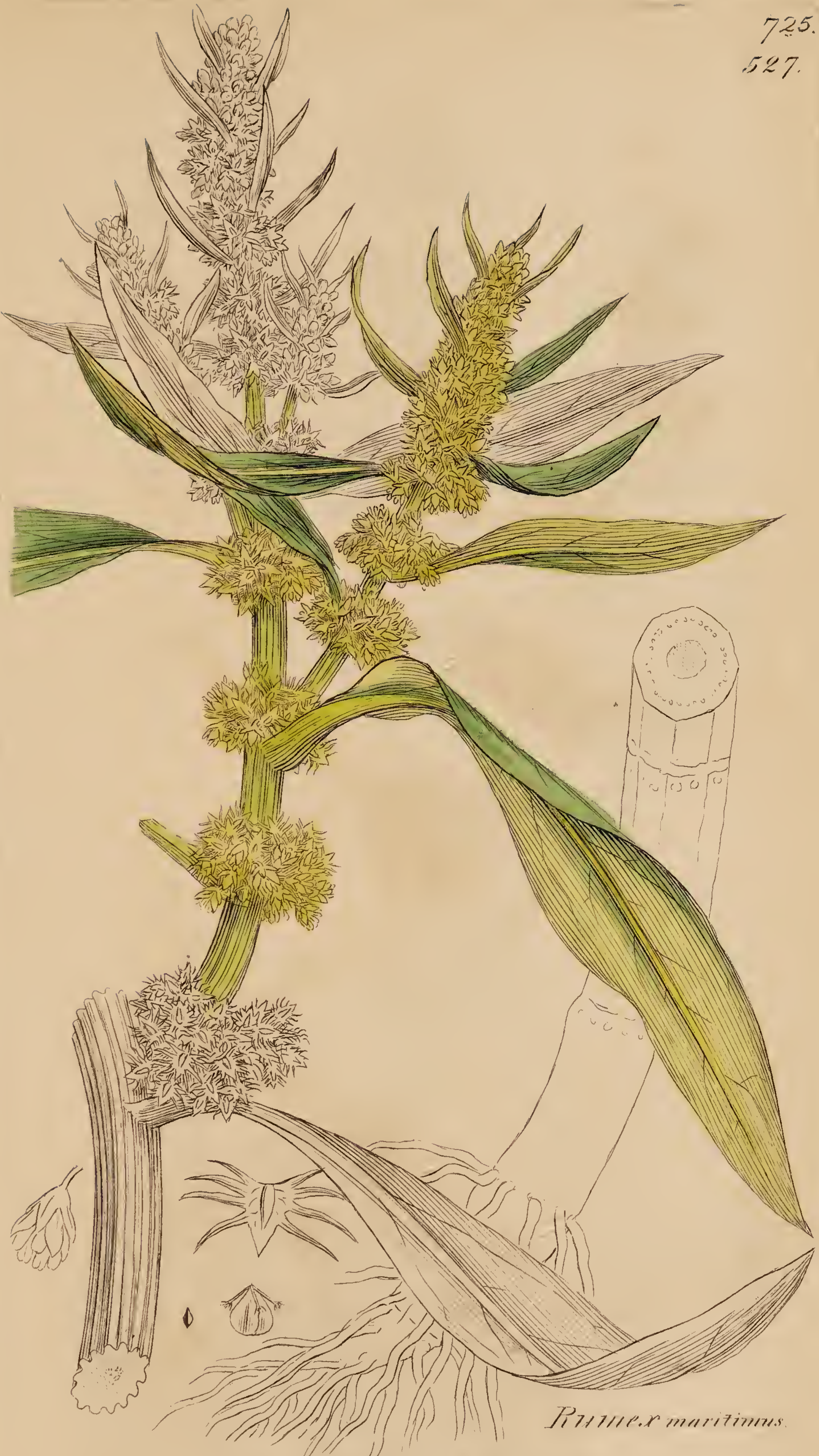
526.



[illegible] Publish'd by Jas. Sowerby, London.

Rumex palustris

725.
527.

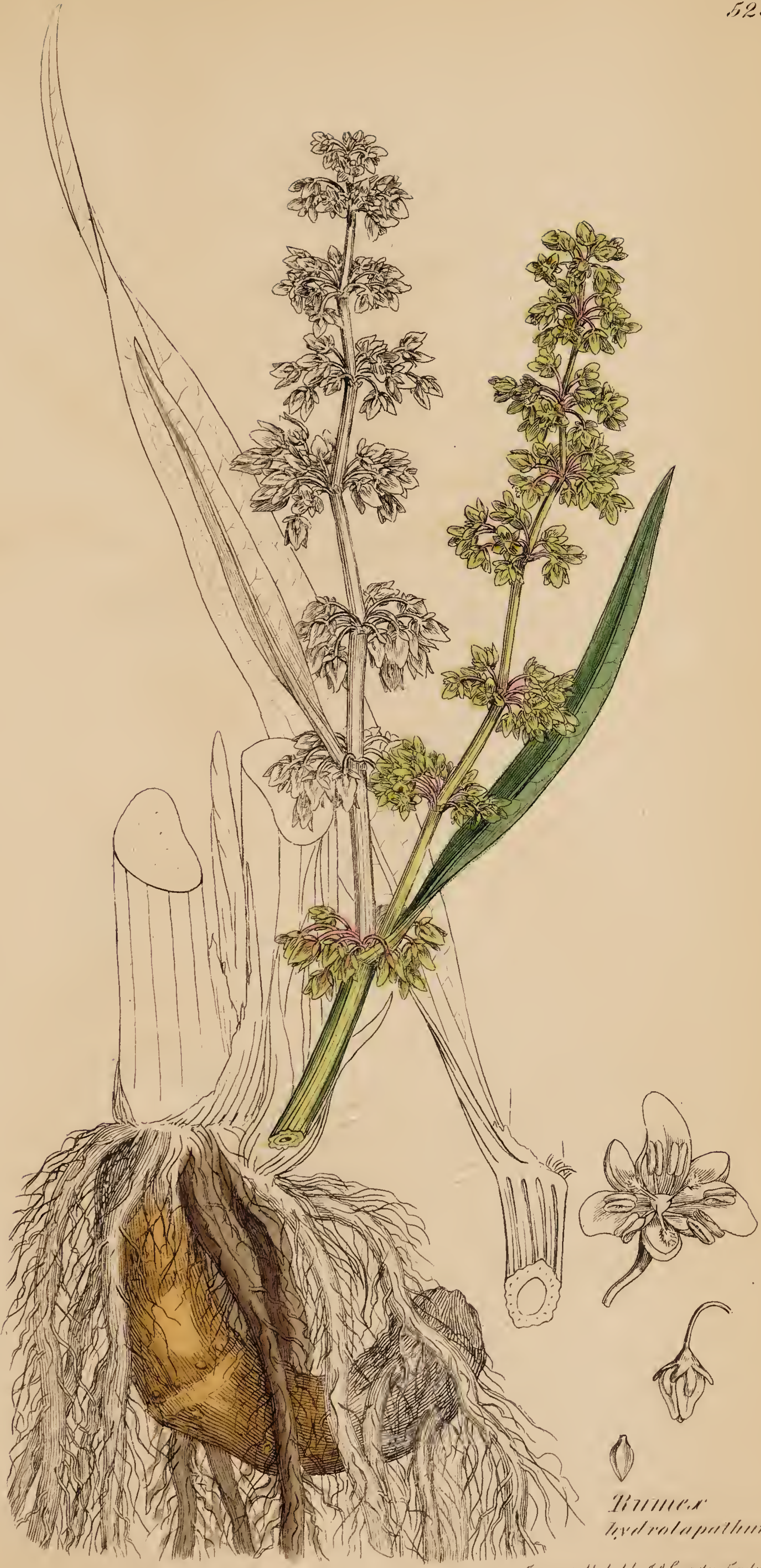


Rumex maritimus.

[illegible] 1800. Publishd by Jas. Sowerby London.

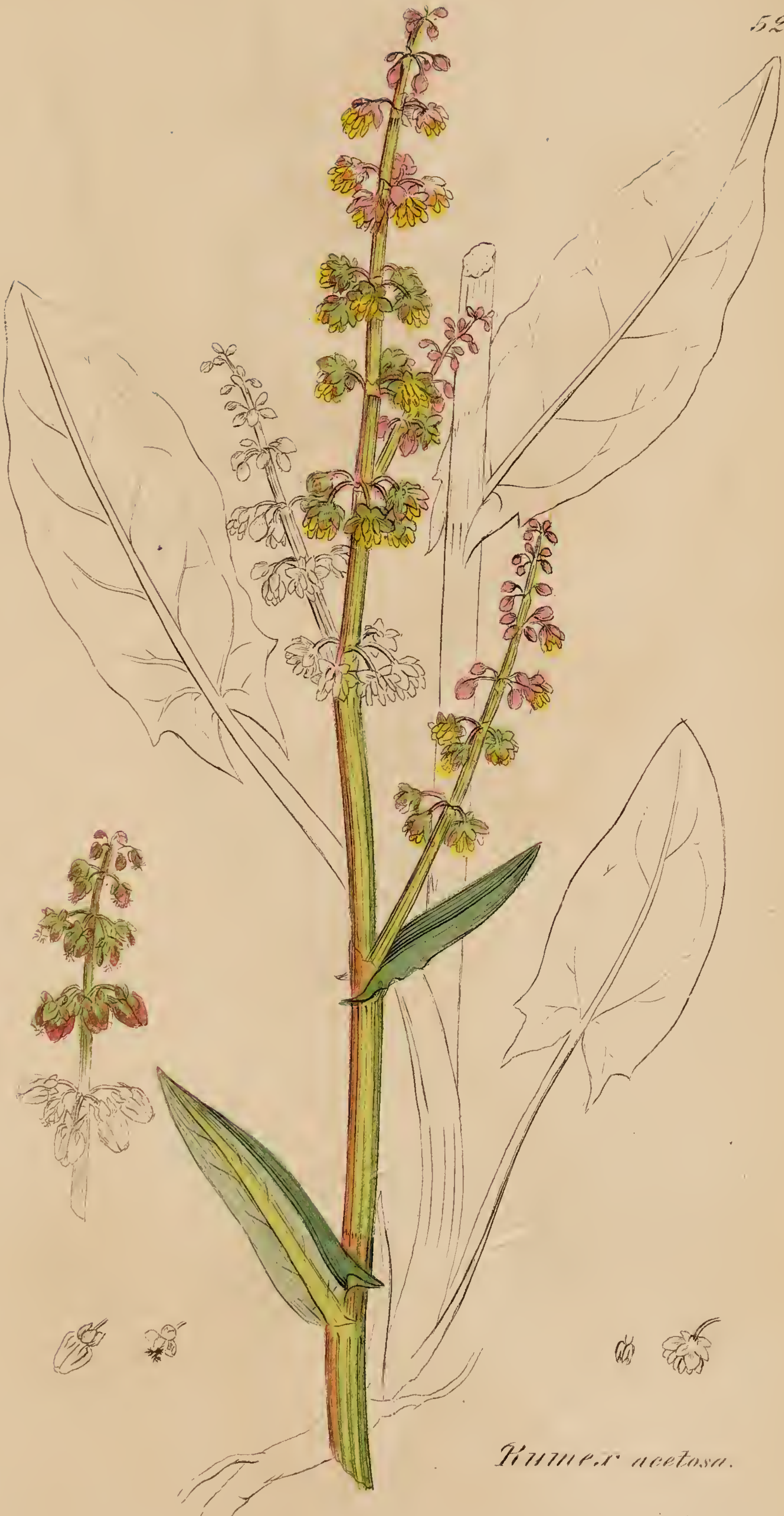
2104.

528.



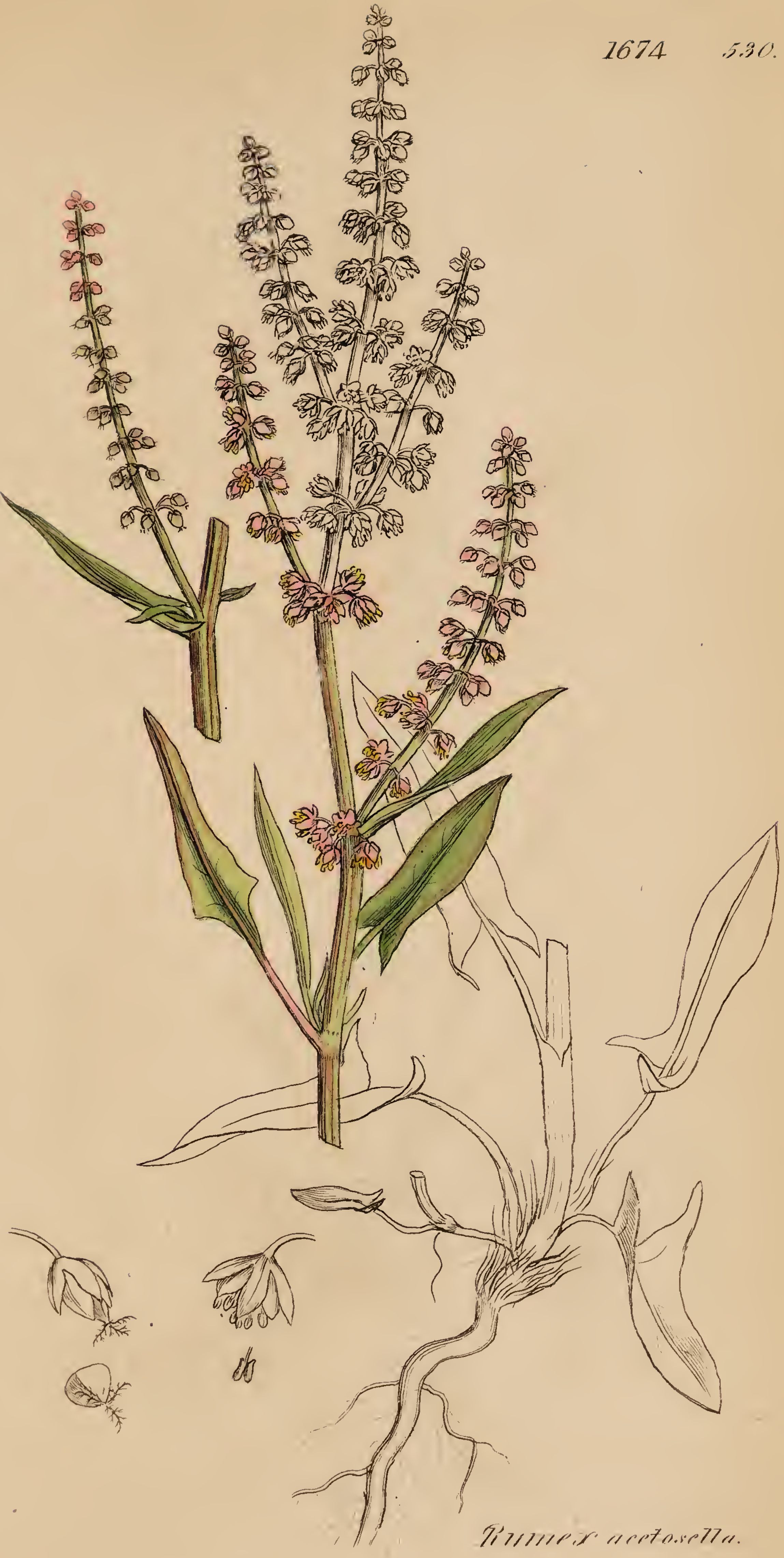
Rumex hydrolapathum.

Jan 1810 published by Jas Sowerby London.



Rumex acetosa.

Js Sowerby delt Augst 1 1793.

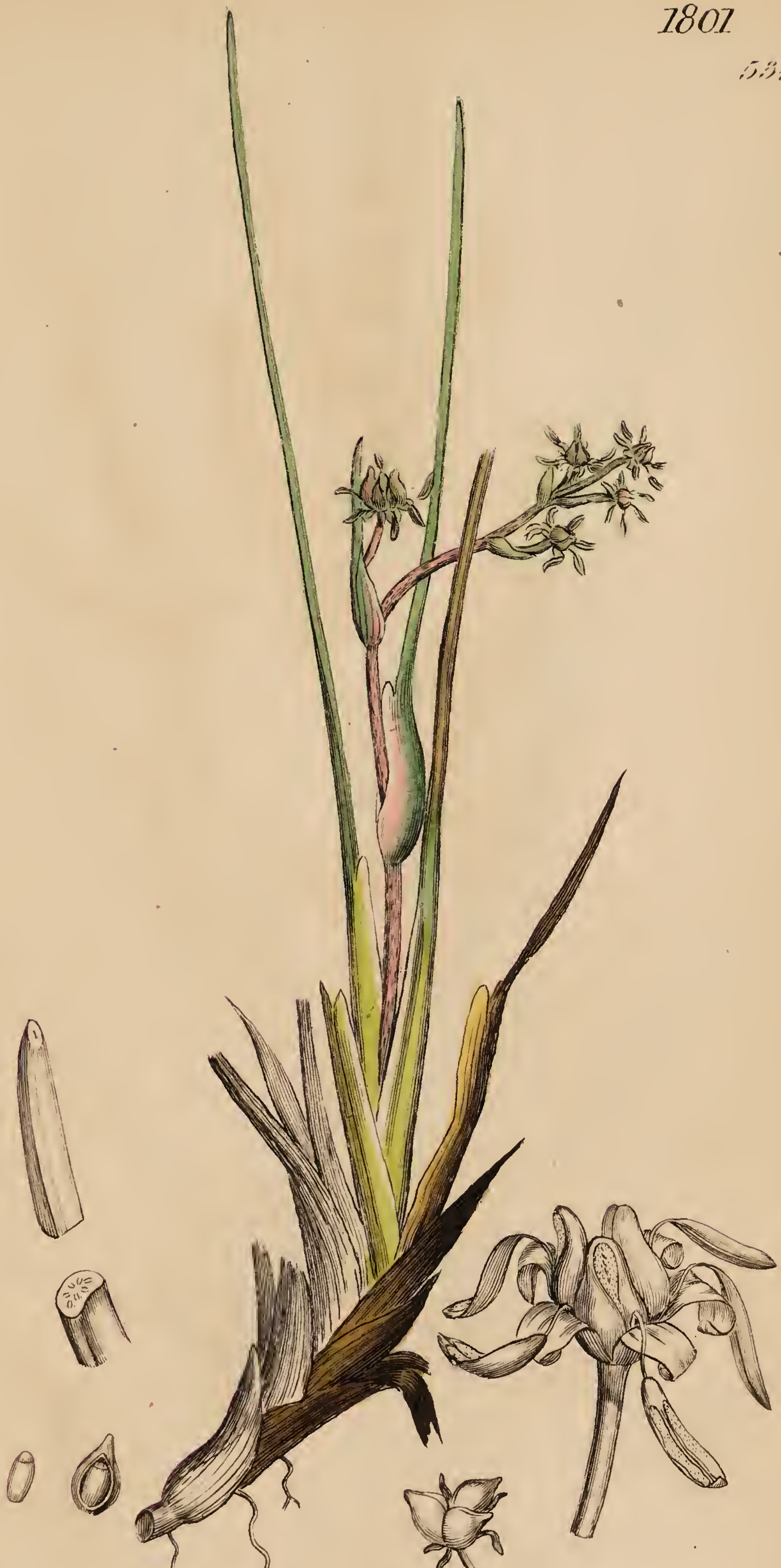


Rumex acetosella.

Nov.1.1806. Publish'd by Jas. Sowerby London.

1801

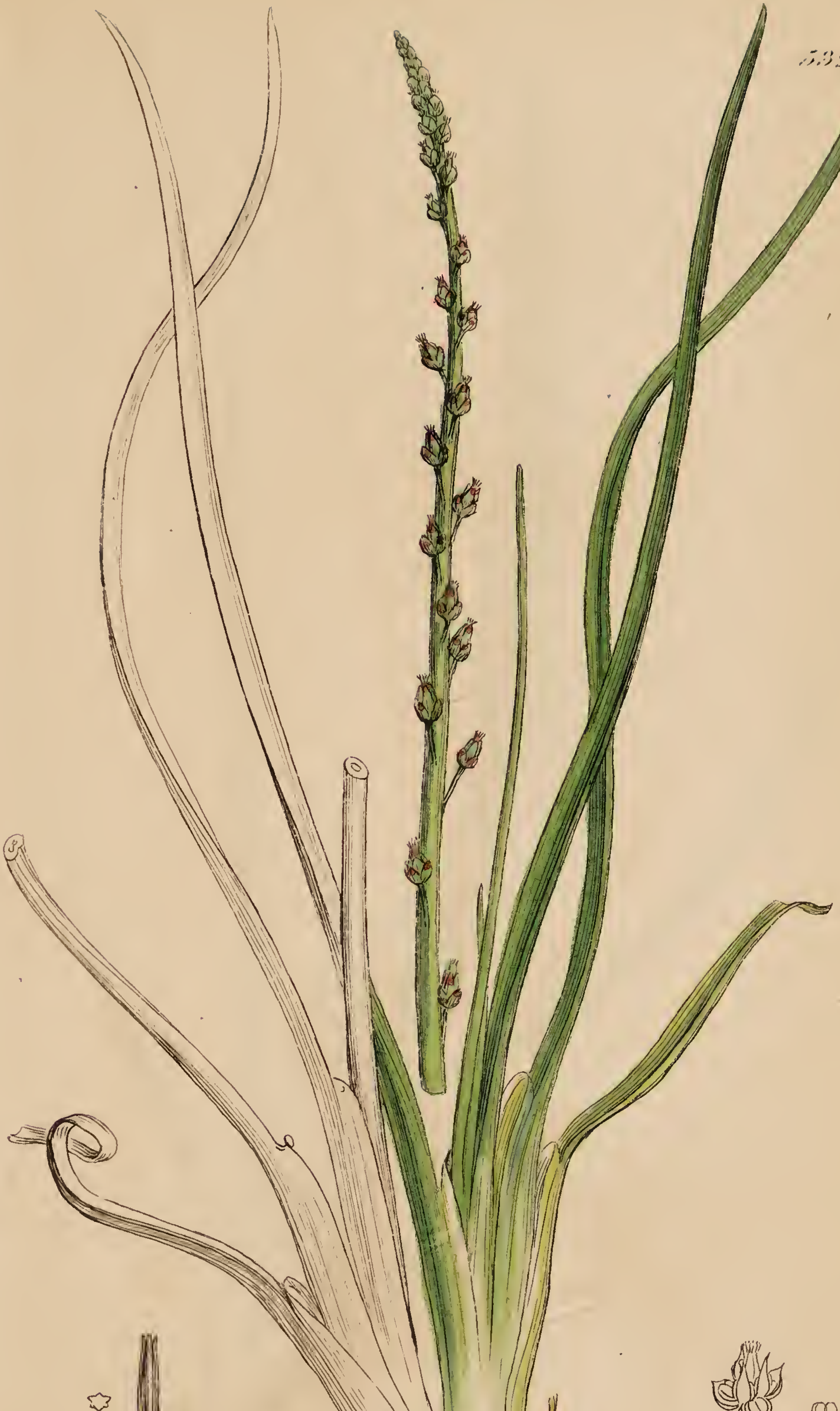
531.



Scheuchzeria palustris.

Oct.1.1807. Publish'd by Ja^s. Sowerby London.

532.

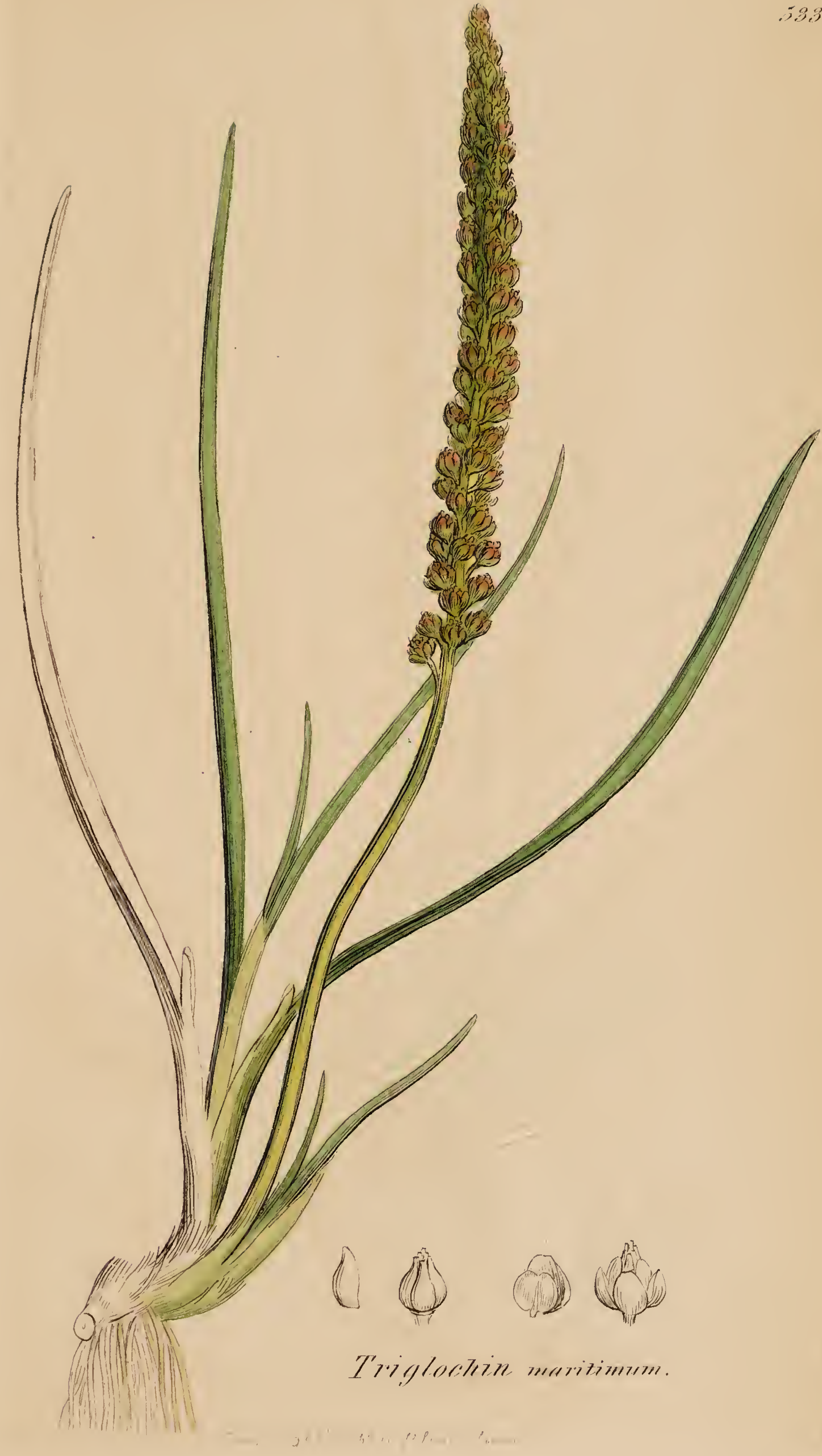


Triglochin palustre.

Decr 1 1796 Published by J. Sowerby London

255.

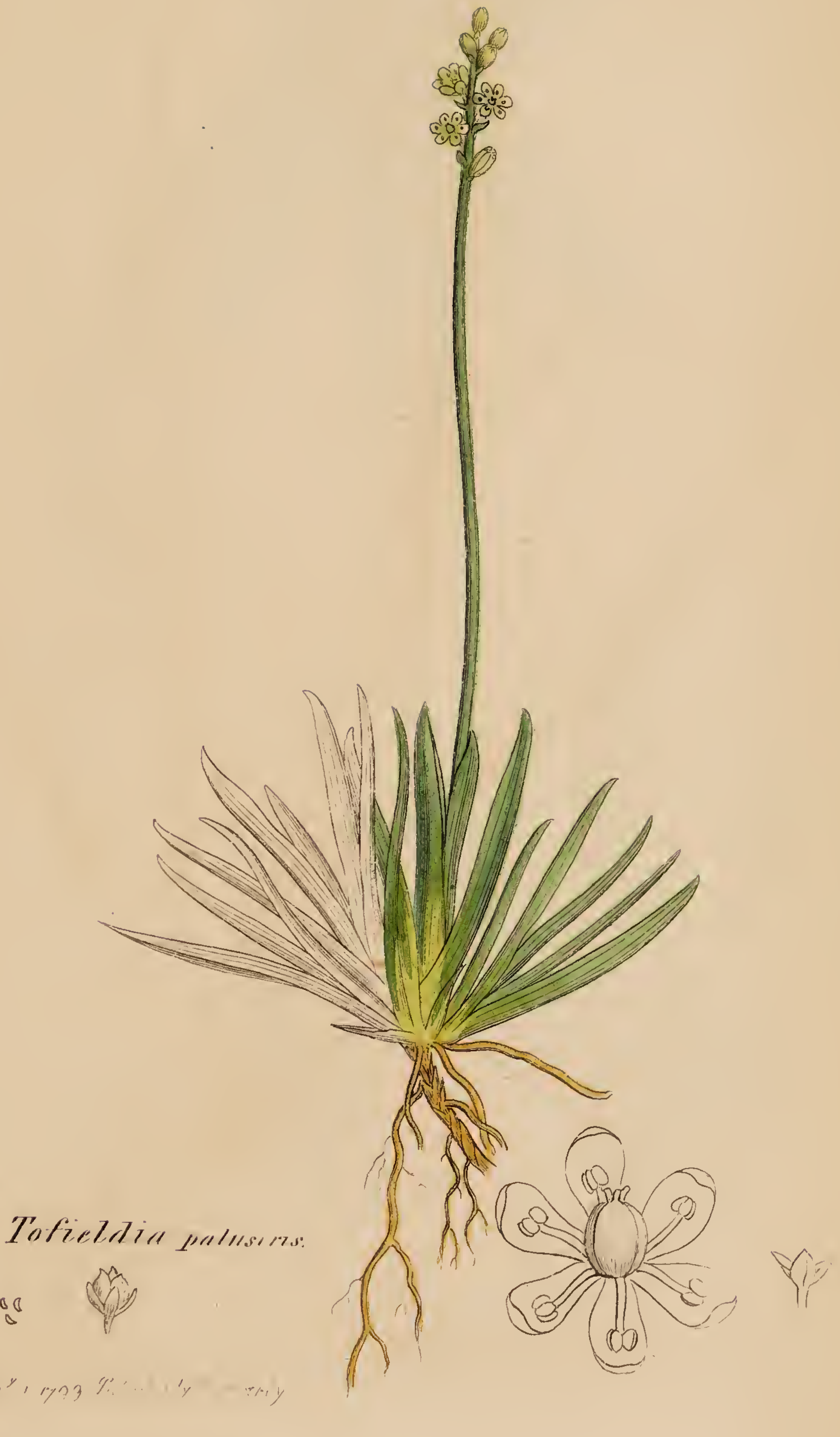
533



Triglochin maritimum.

[illegible]

536.
534.

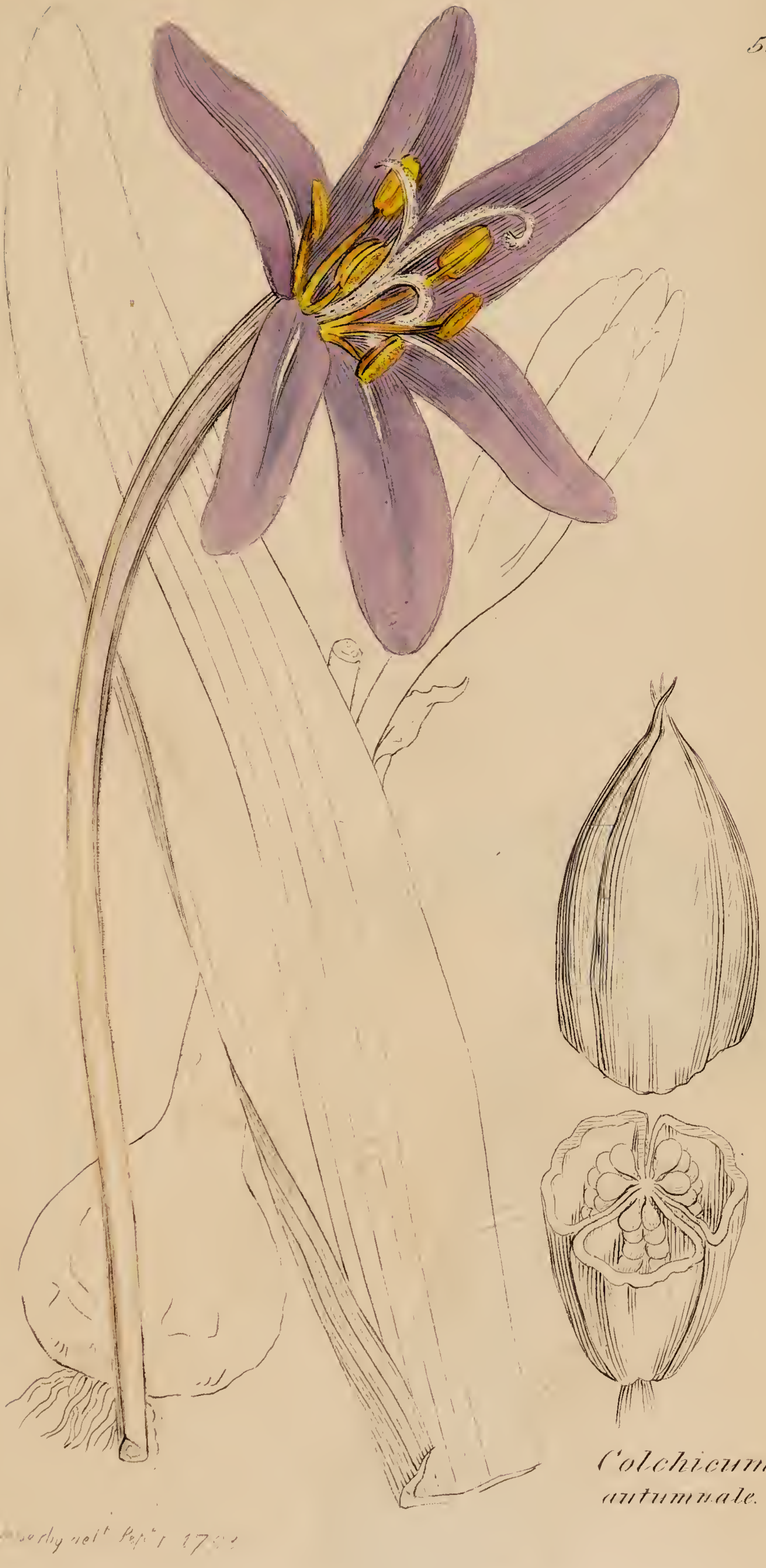


Tofieldia palustris.

[illegible]y 1 1793 J. [illegible] by [illegible]erby

133.

535.

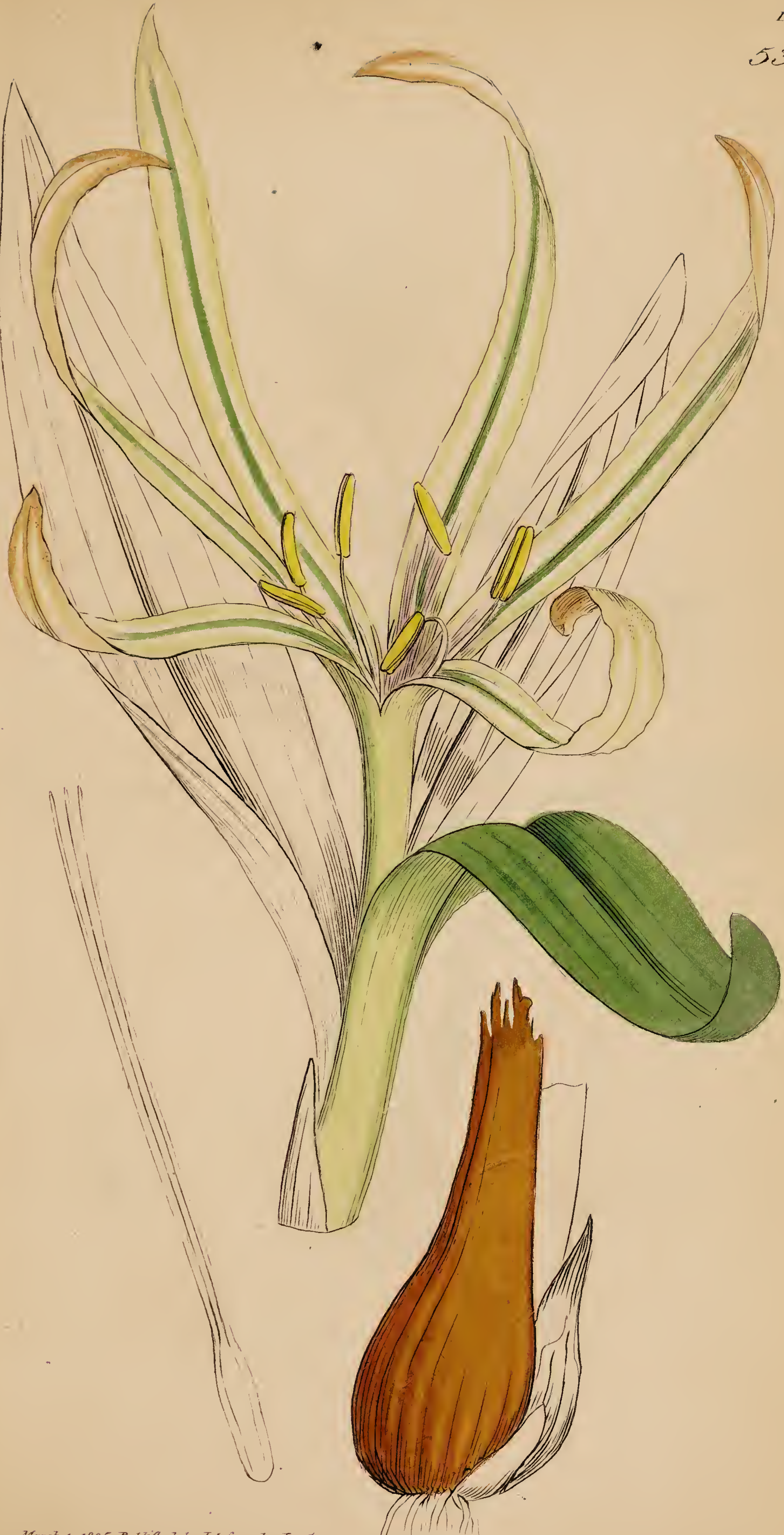


Colchicum autumnale.

J. Sowerby delt Sepr 1 17[illegible]

1432

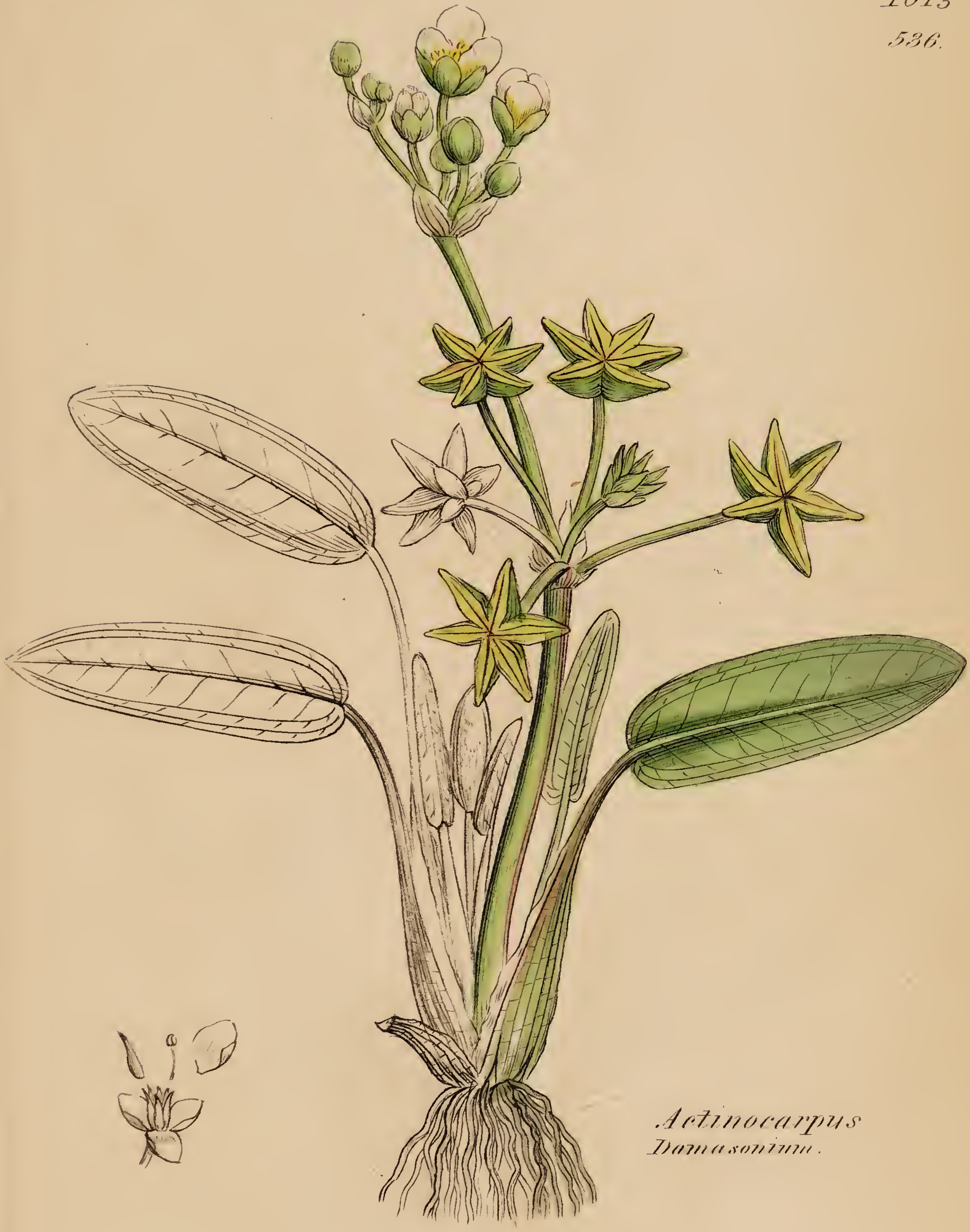
535*



March 1. 1805 Publiſhed by Jaˢ Sowerby. London.

1615

536.

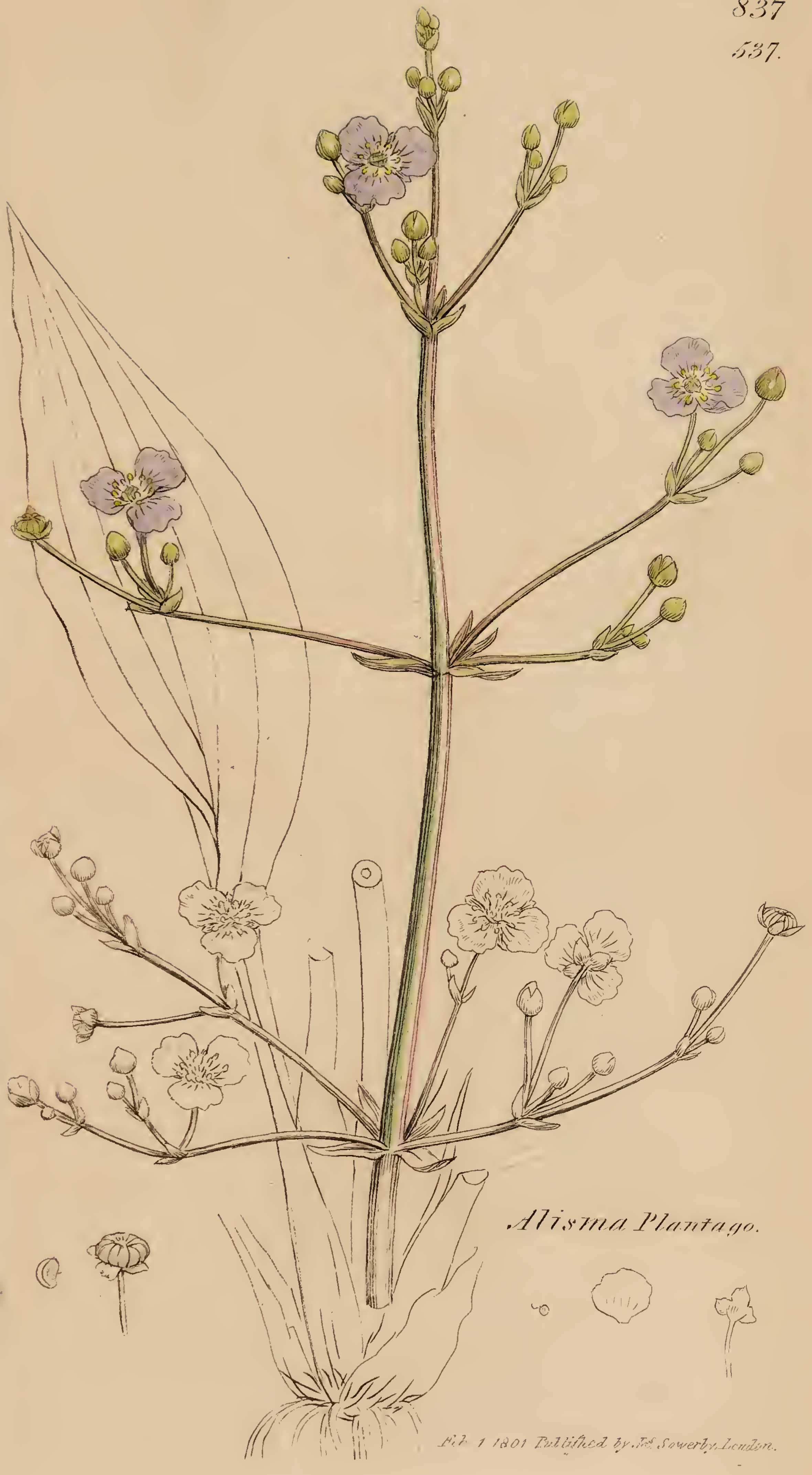


Actinocarpus
Damasonium.

July 1. 1806. Published by Jas. Sowerby, London.

837

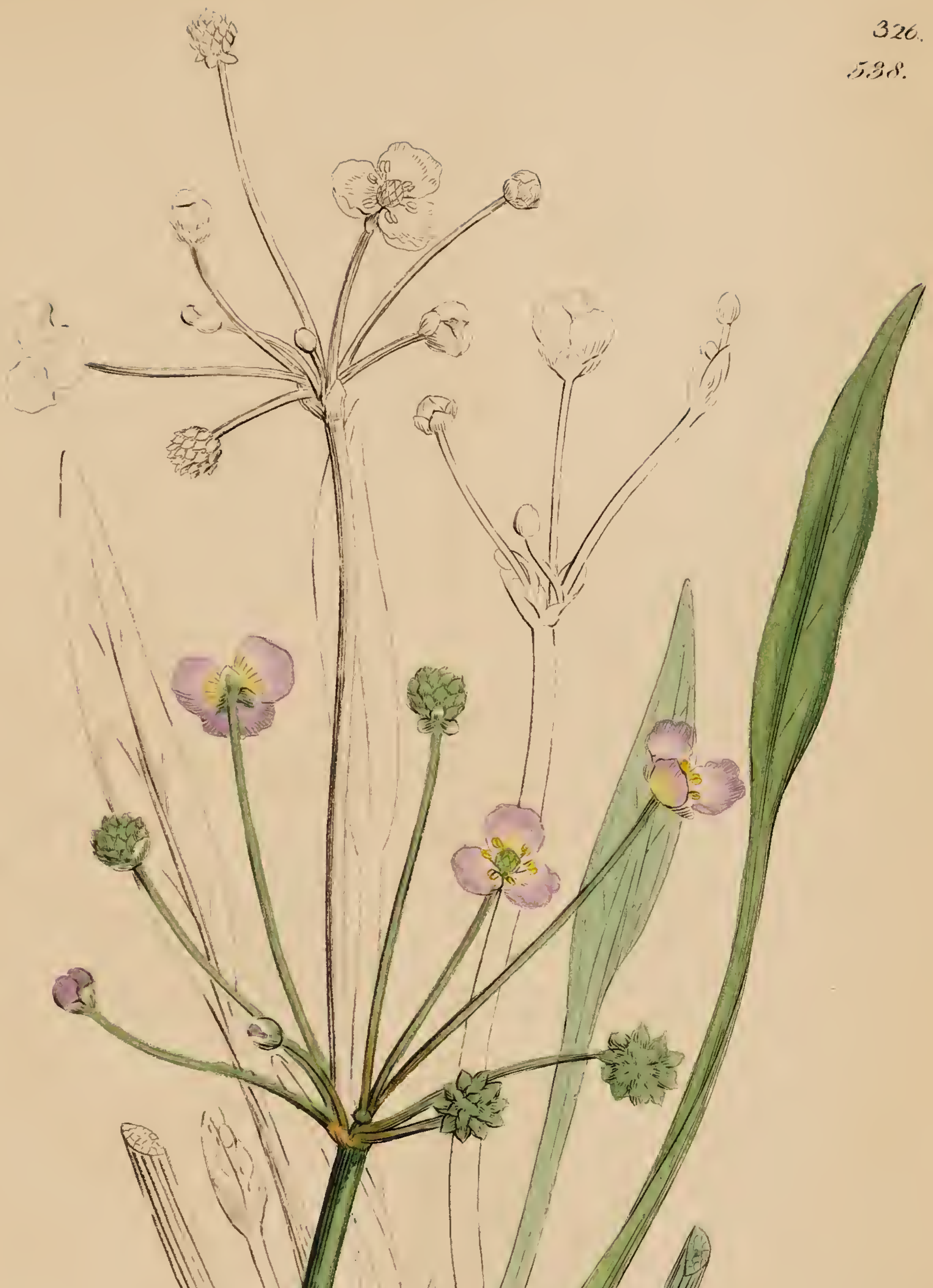
537.



Alisma Plantago.

Feb. 1 1801 Publiſhed by Jas Sowerby, London.

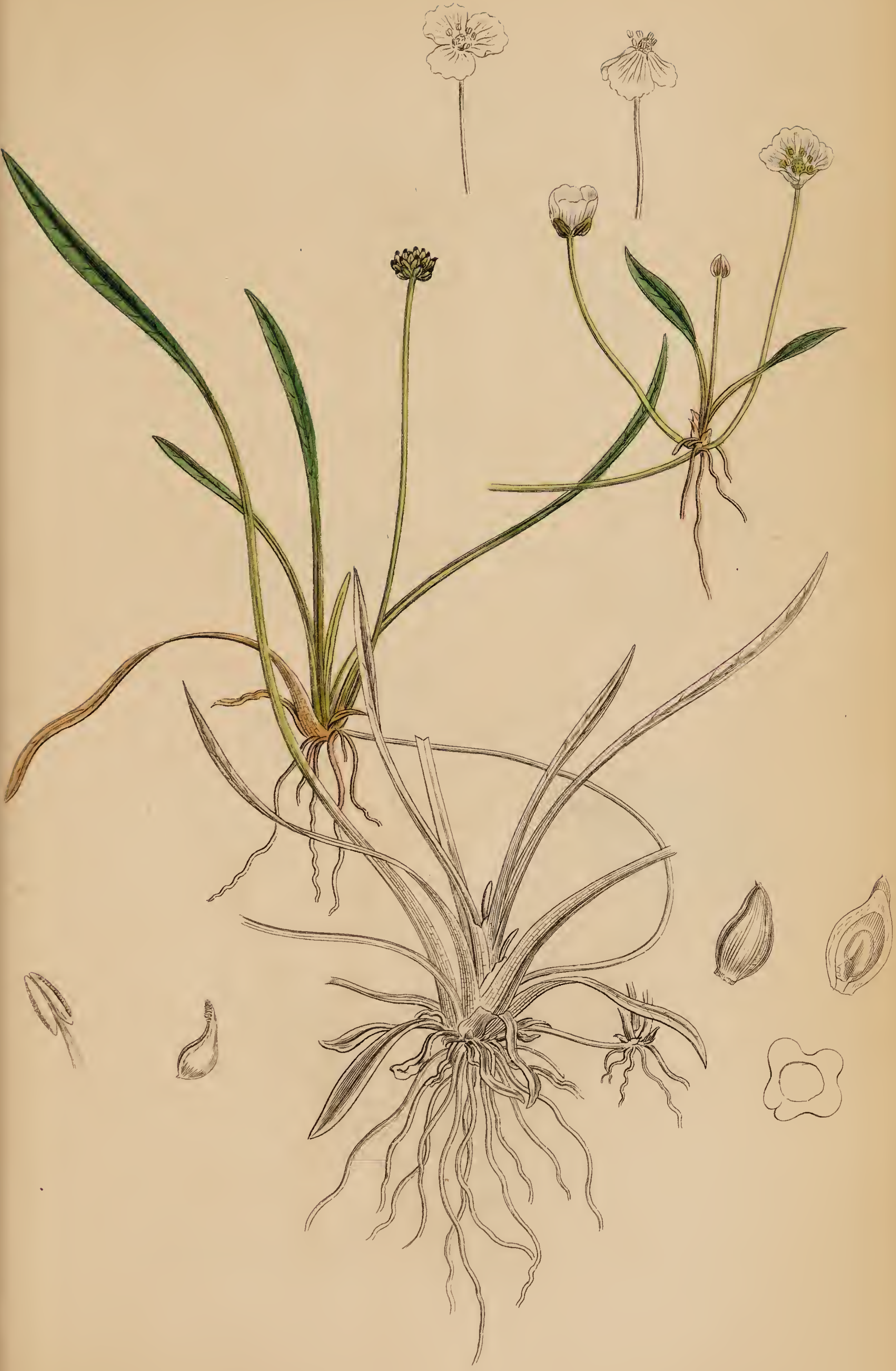
326.
538.



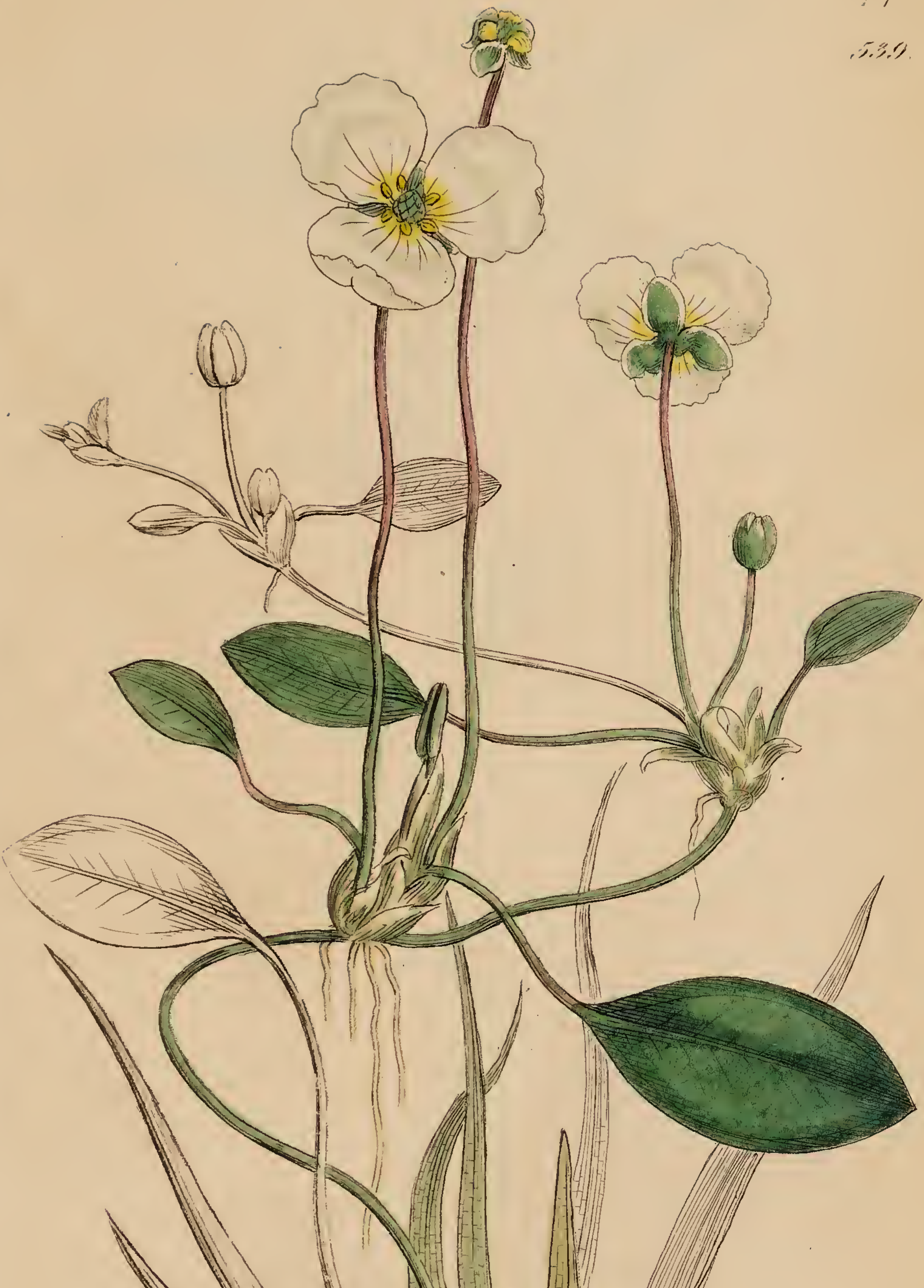
Alisma
ranunculoides.

2722.

538*



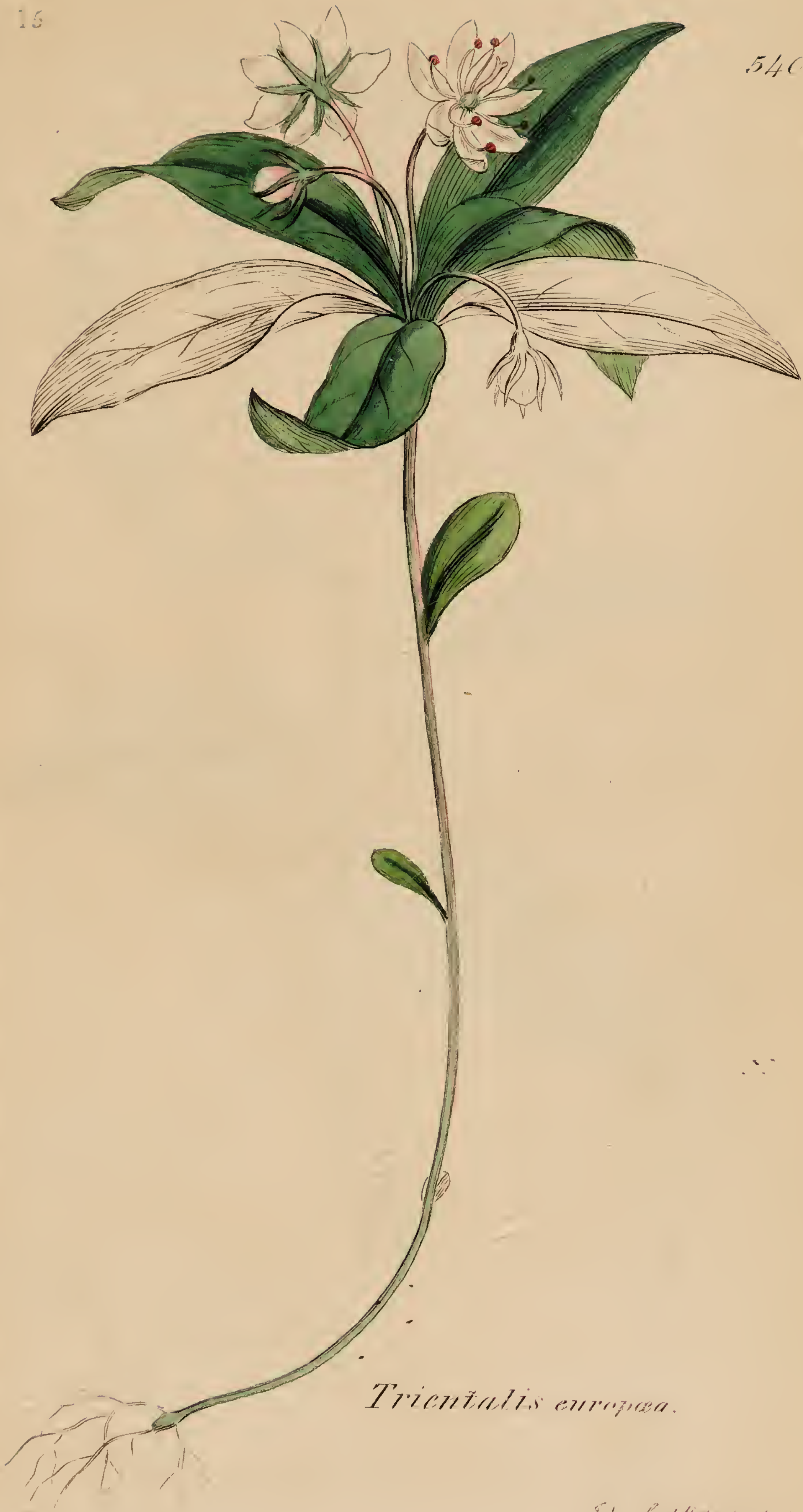
December 1st 1837.



Alisma natans.

15

540.

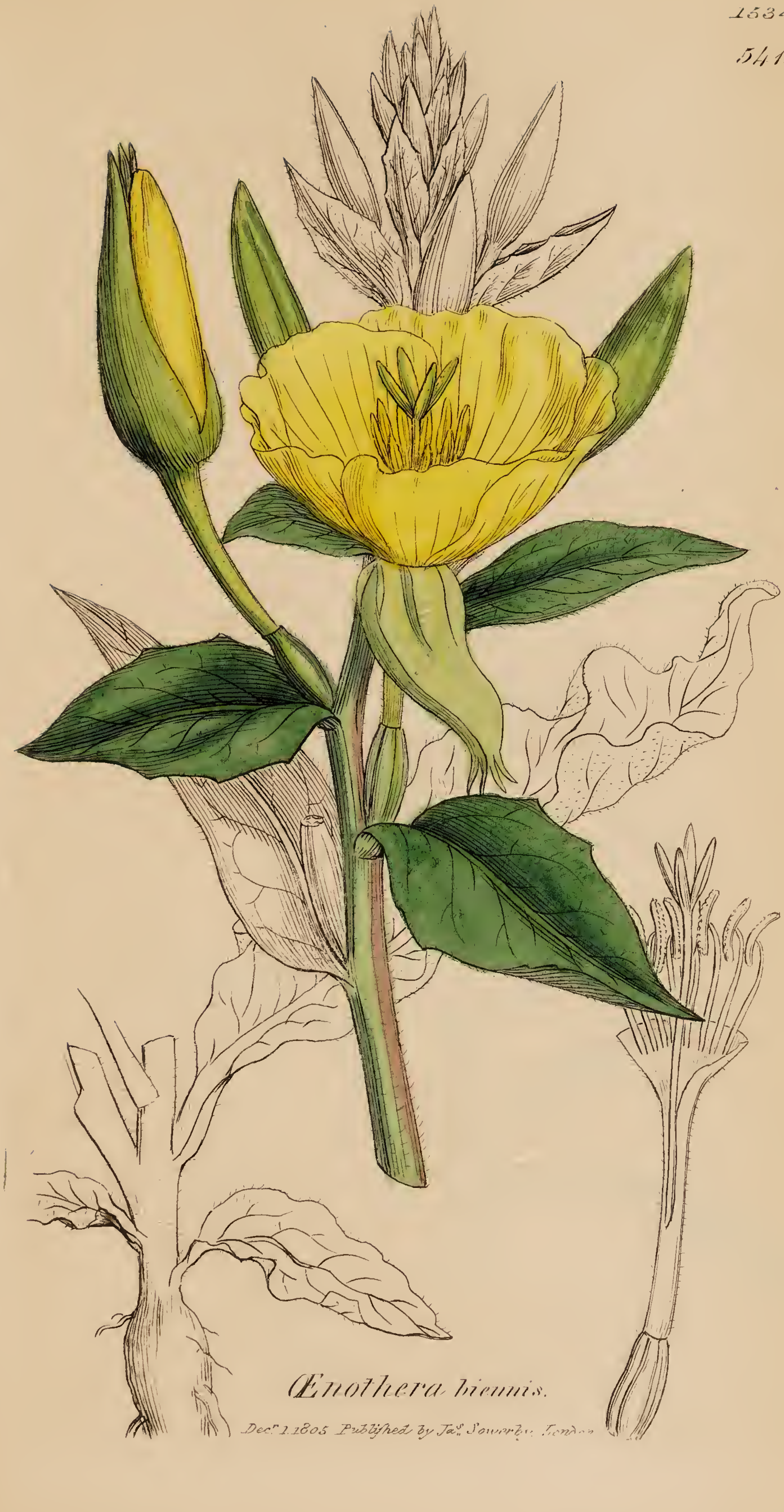


Trientalis europæa.

J. Sowerby del. April 1791

1534

541.

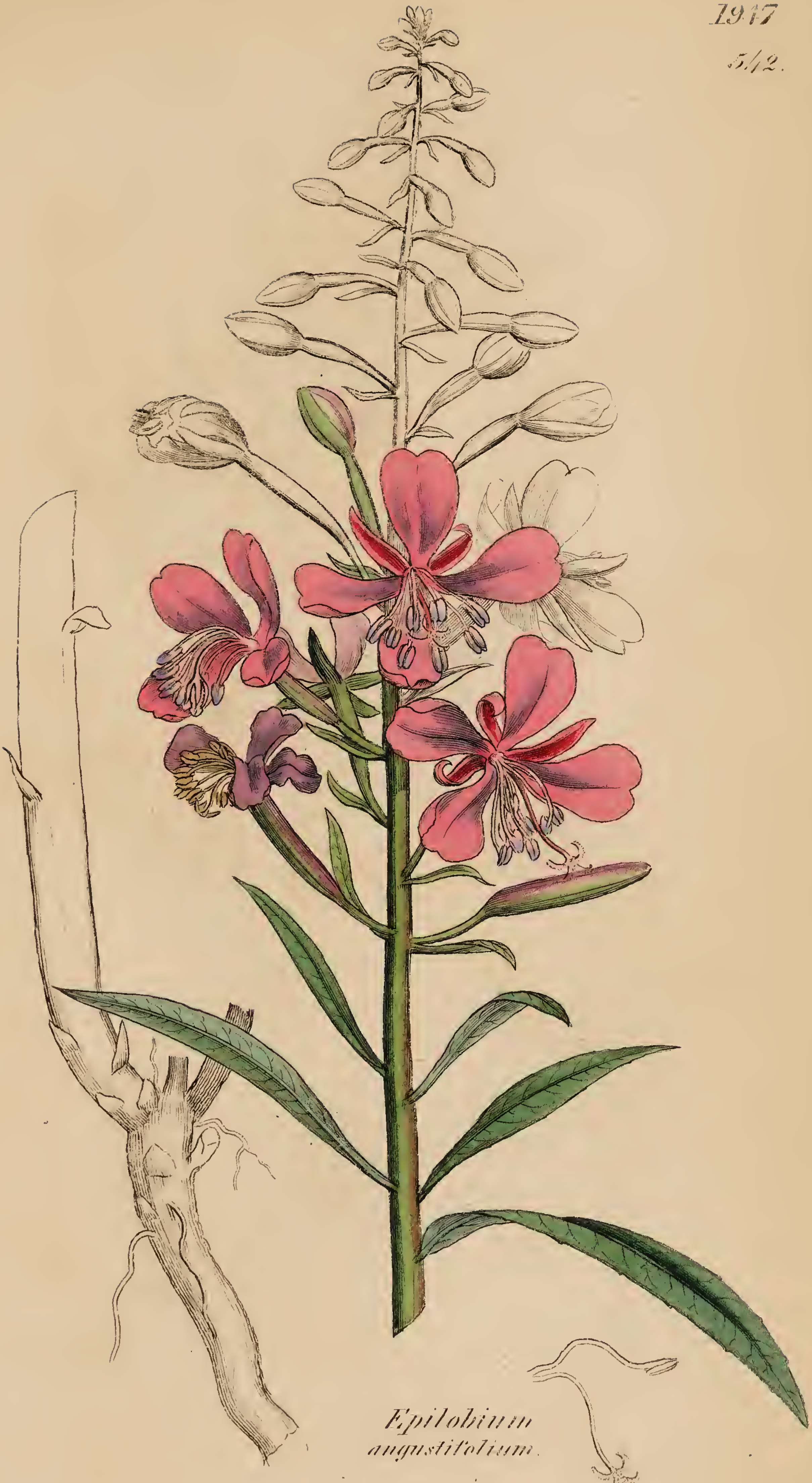


Œnothera biennis.

Decr. 1. 1805 Publiſhed by Jas. Sowerby London

1947

542.

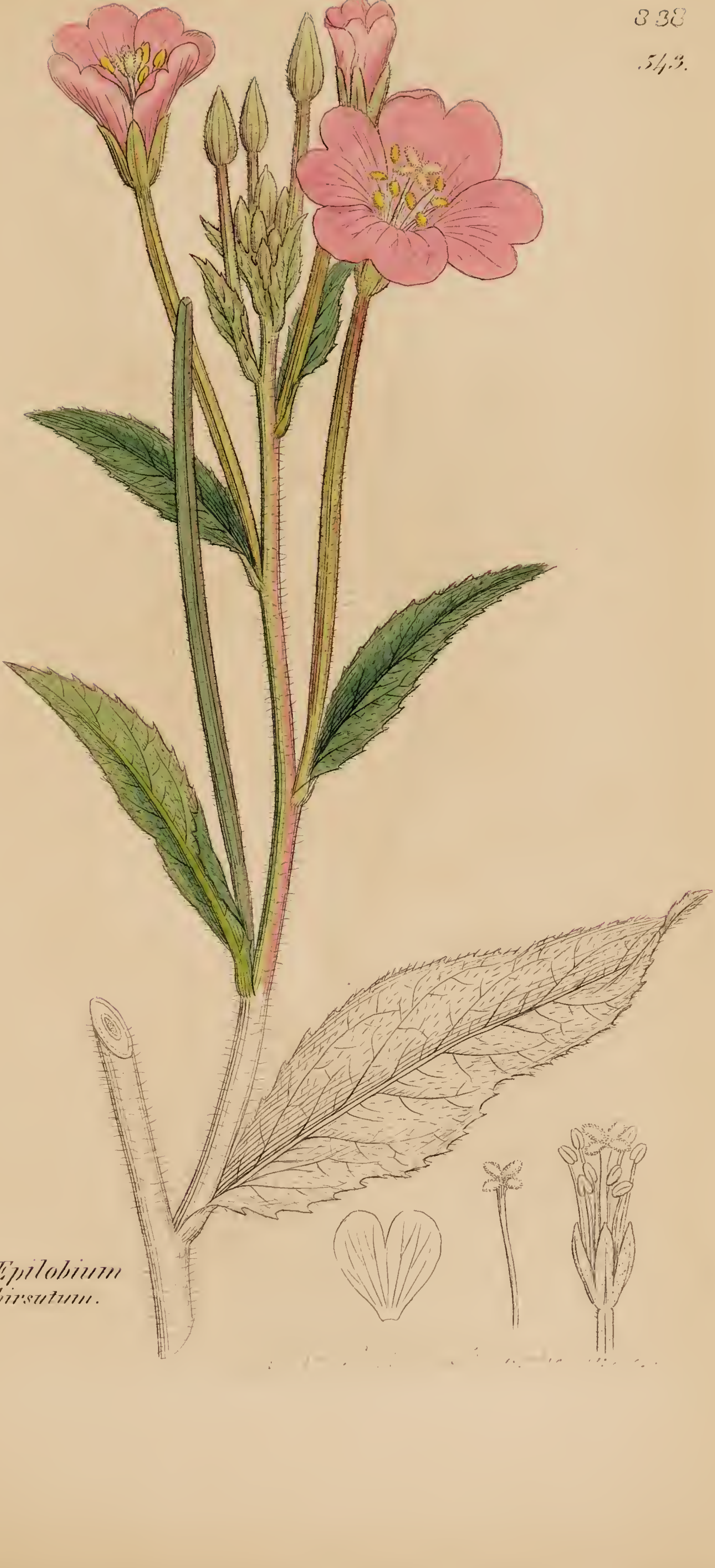


Epilobium
angustifolium.

Nov. 1. 1808. Publish'd by Ja: Sowerby, London.

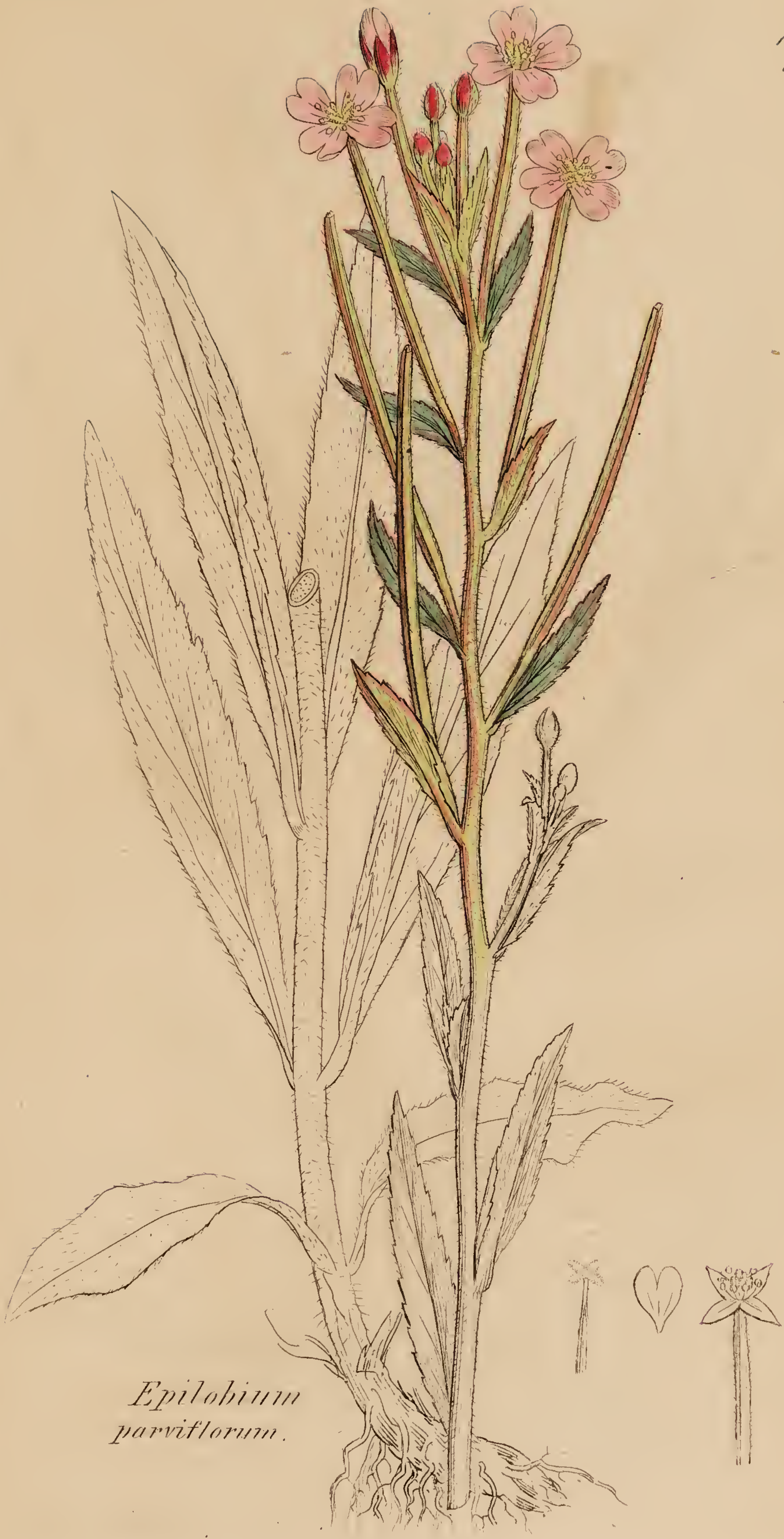
338

543.



Epilobium hirsutum.

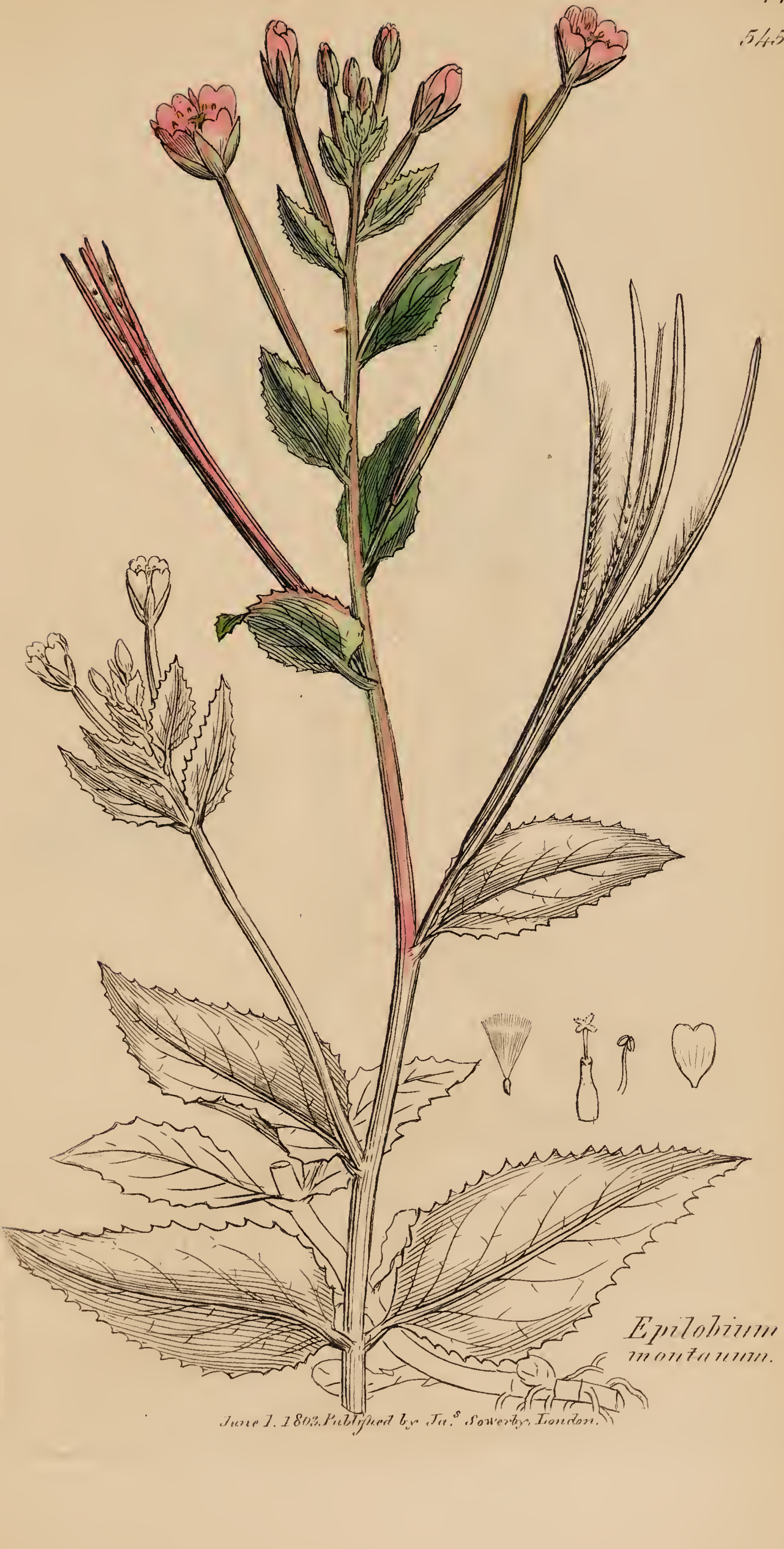
795.
544.



Epilobium
parviflorum.

1177

545.

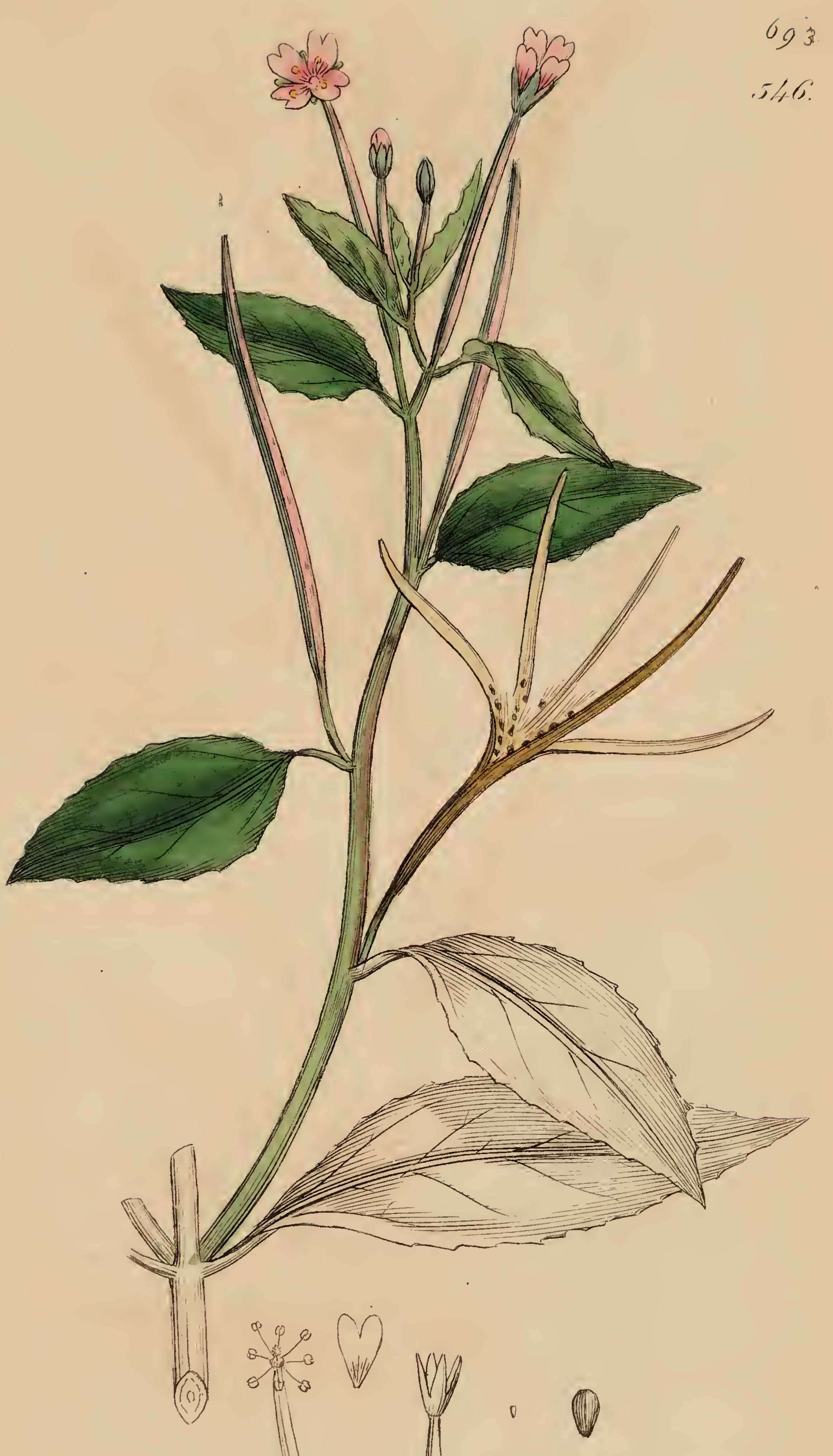


Epilobium
montanum.

June 1. 1803. Published by Jas. Sowerby, London.

693

546.

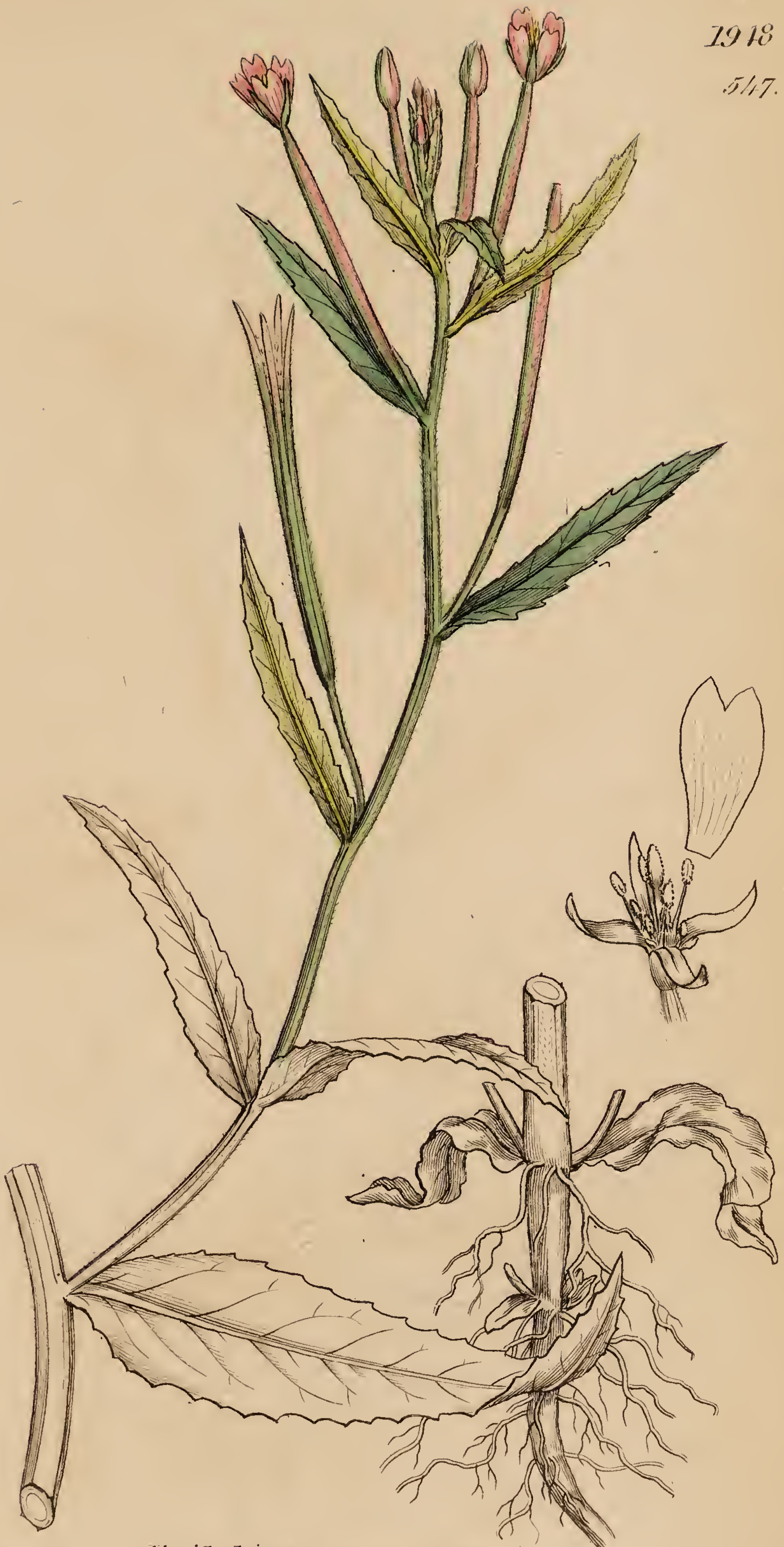


Epilobium roseum.

[illegible] London.

1948

547.

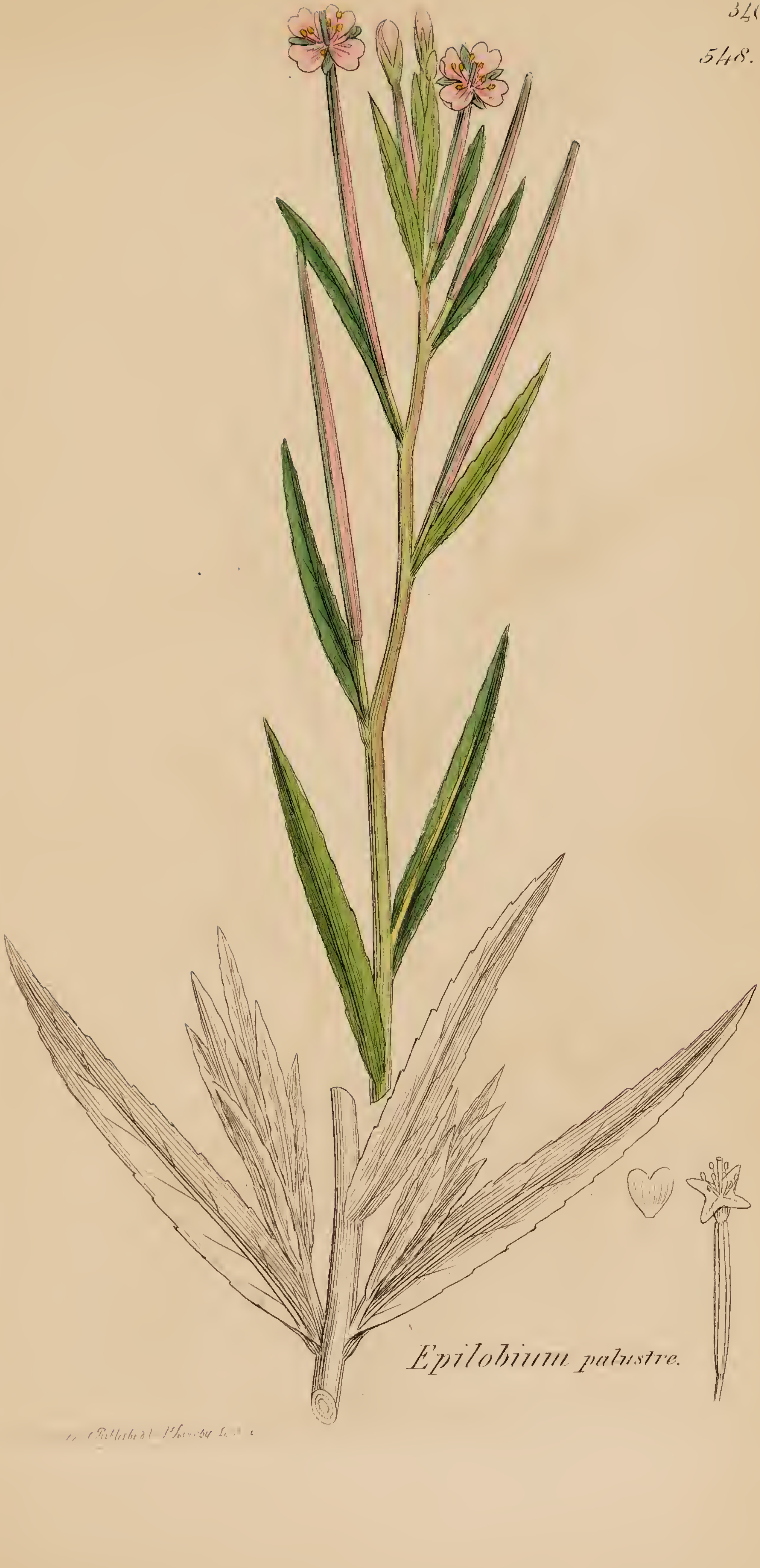


Epilobium tetragonum.

Nov.r 1 1808. Publish'd by Jas. Sowerby London.

346

548.

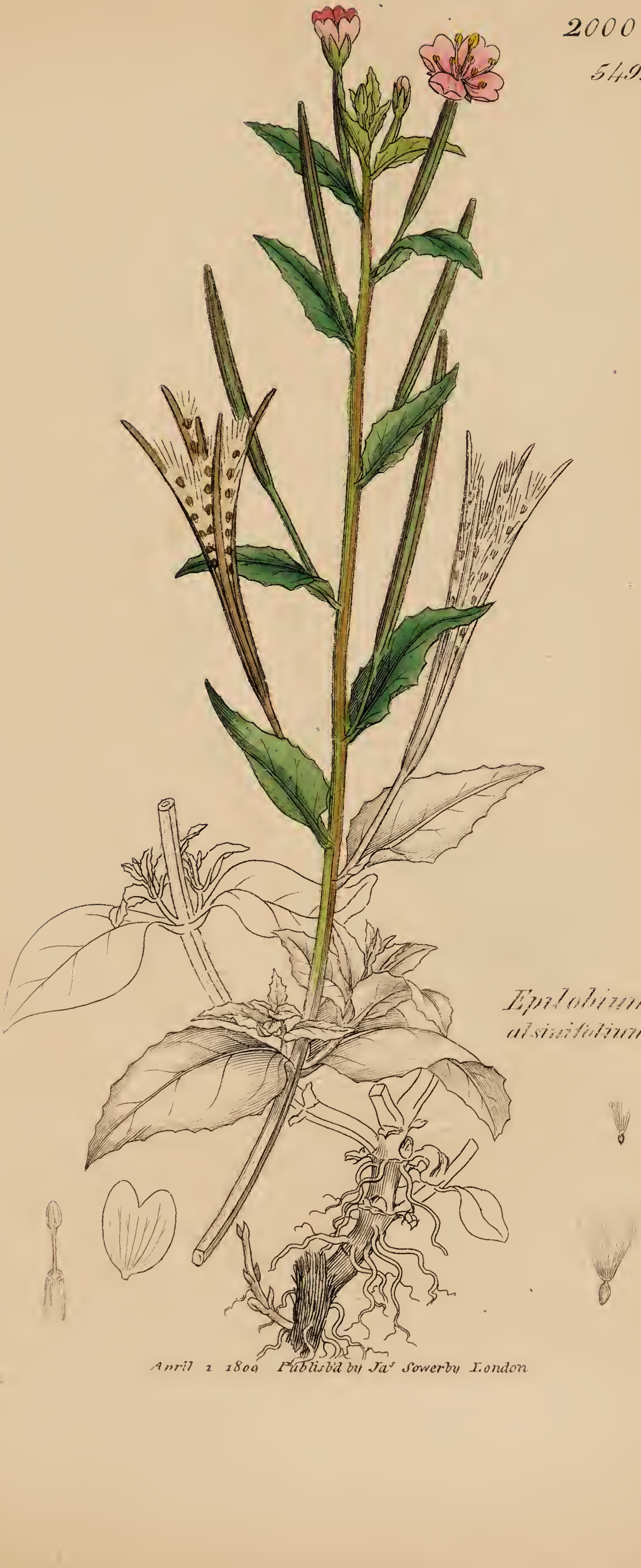


Epilobium palustre.

[illegible] Publish'd [illegible] Sowerby [illegible]

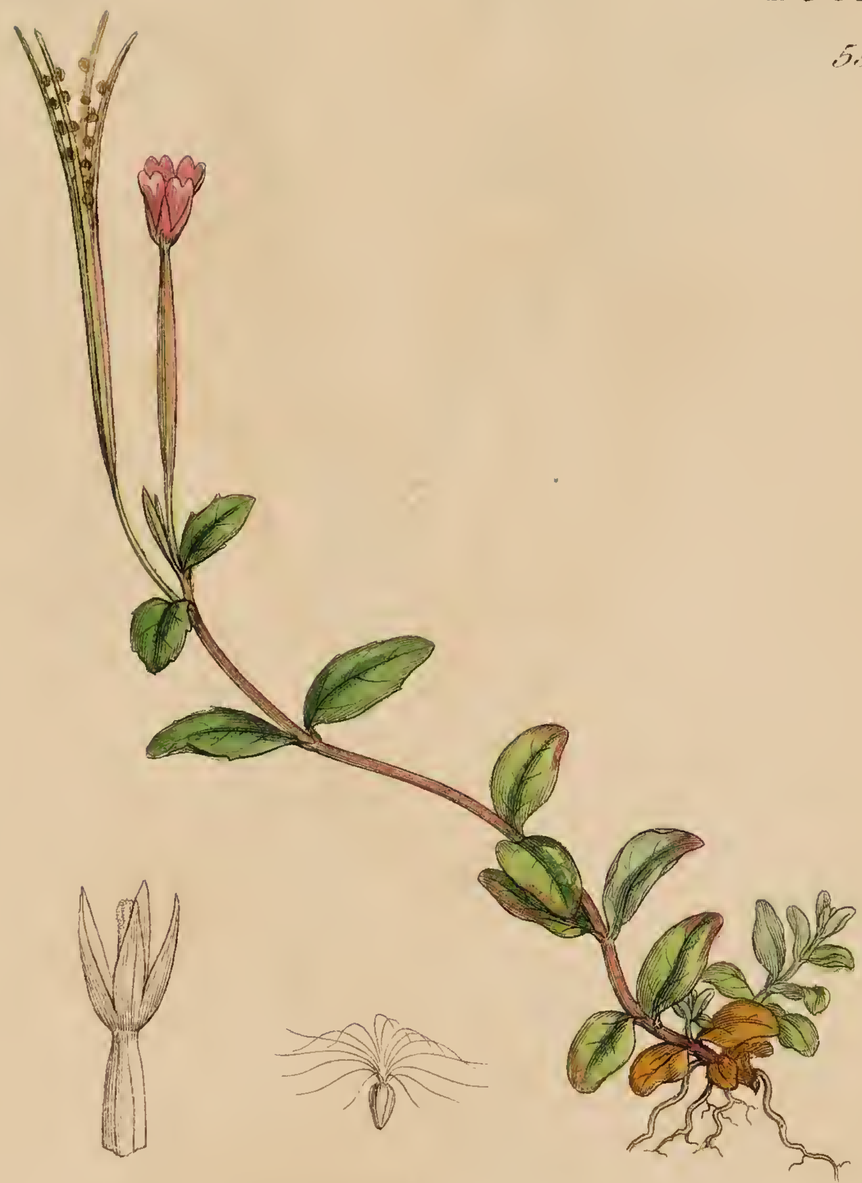
2000

549.



Epilobium alsinifolium.

April 1 1809 Publish'd by Jas Sowerby London

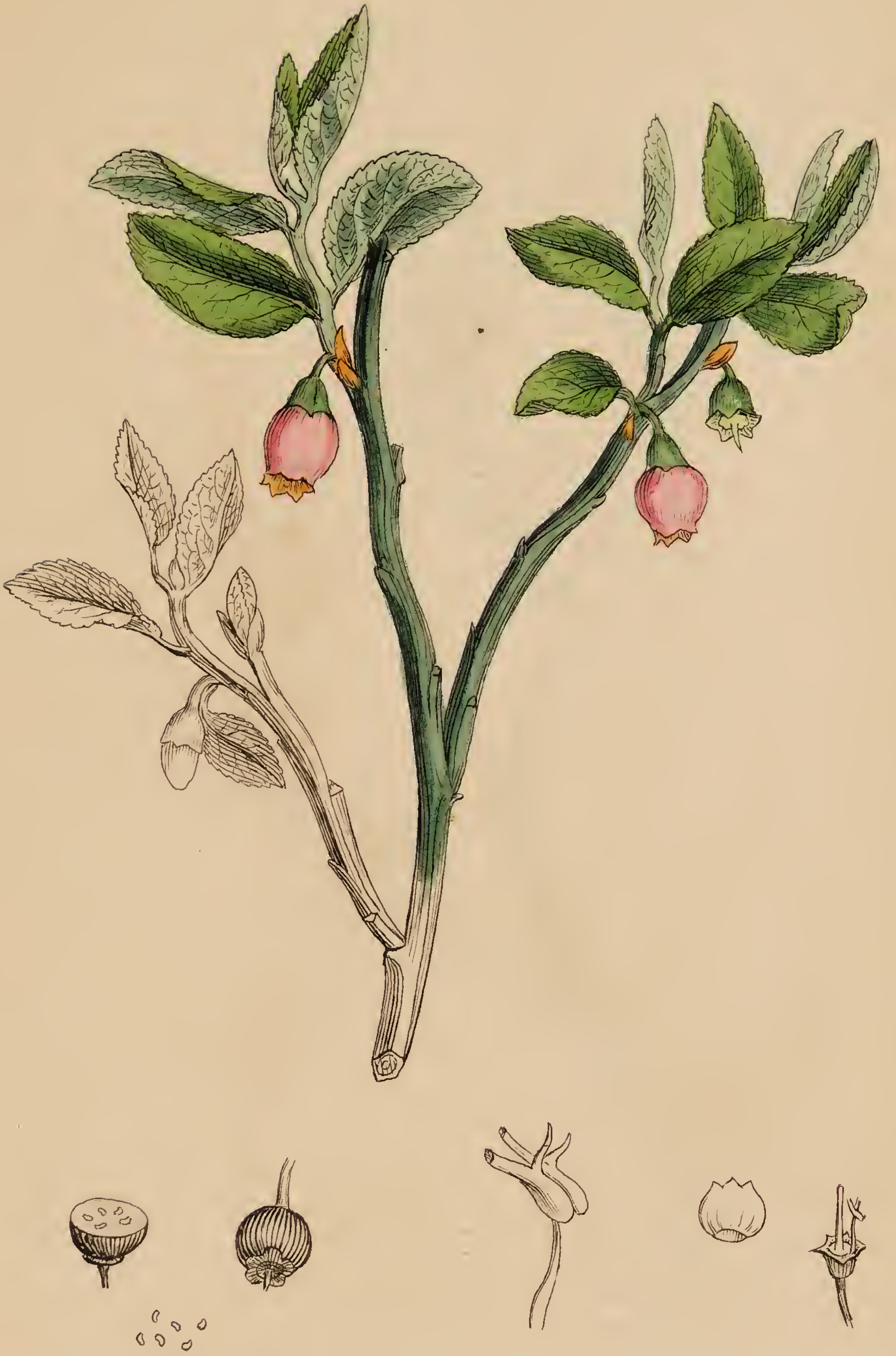


Epilobium alpinum.

April 1 1809 Publishd by Jas Sowerby London

456.

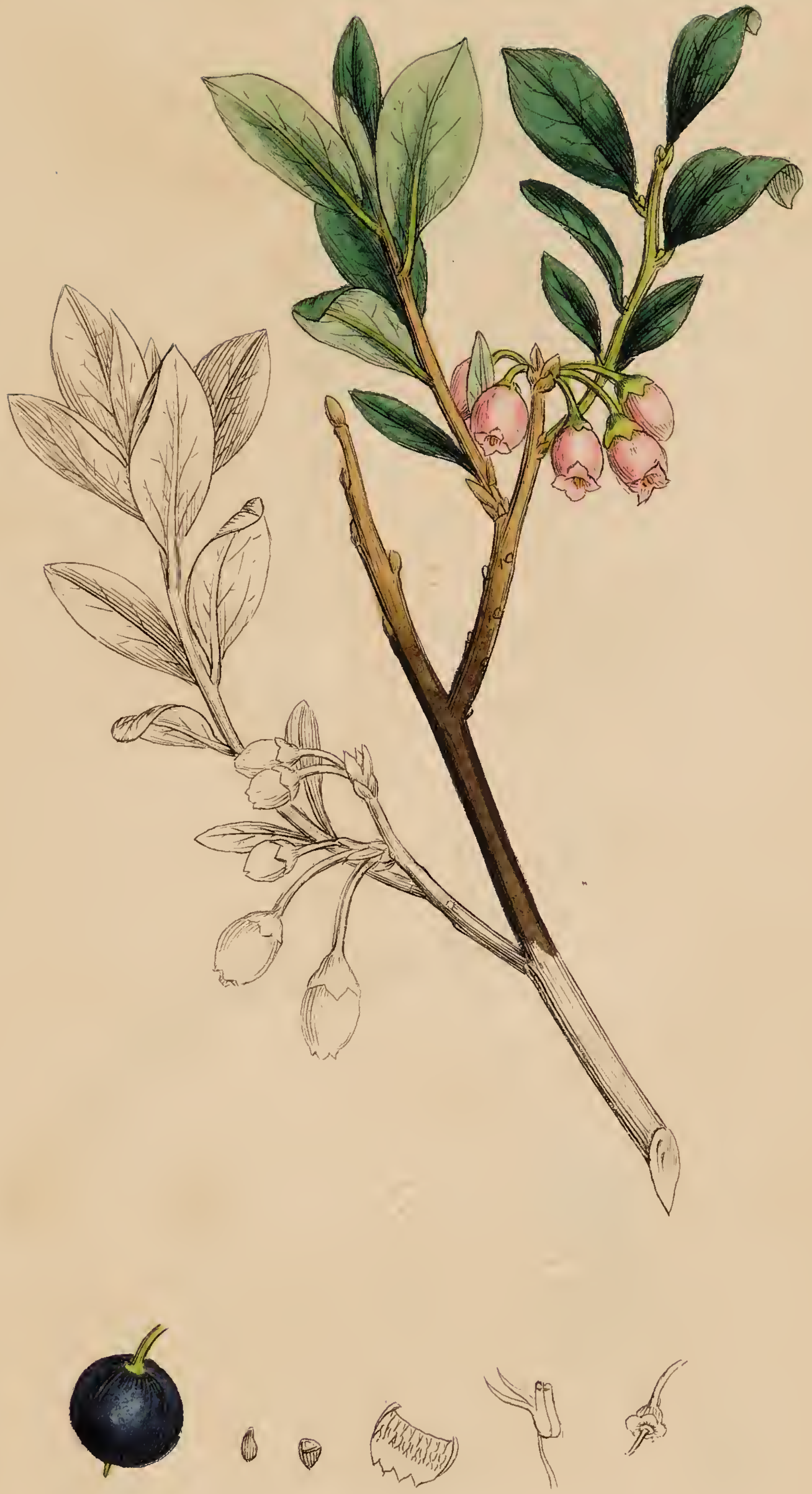
551.



Vaccinium Myrtillus

Jany 1. 1798 Published by Js Sowerby London.

581
552.

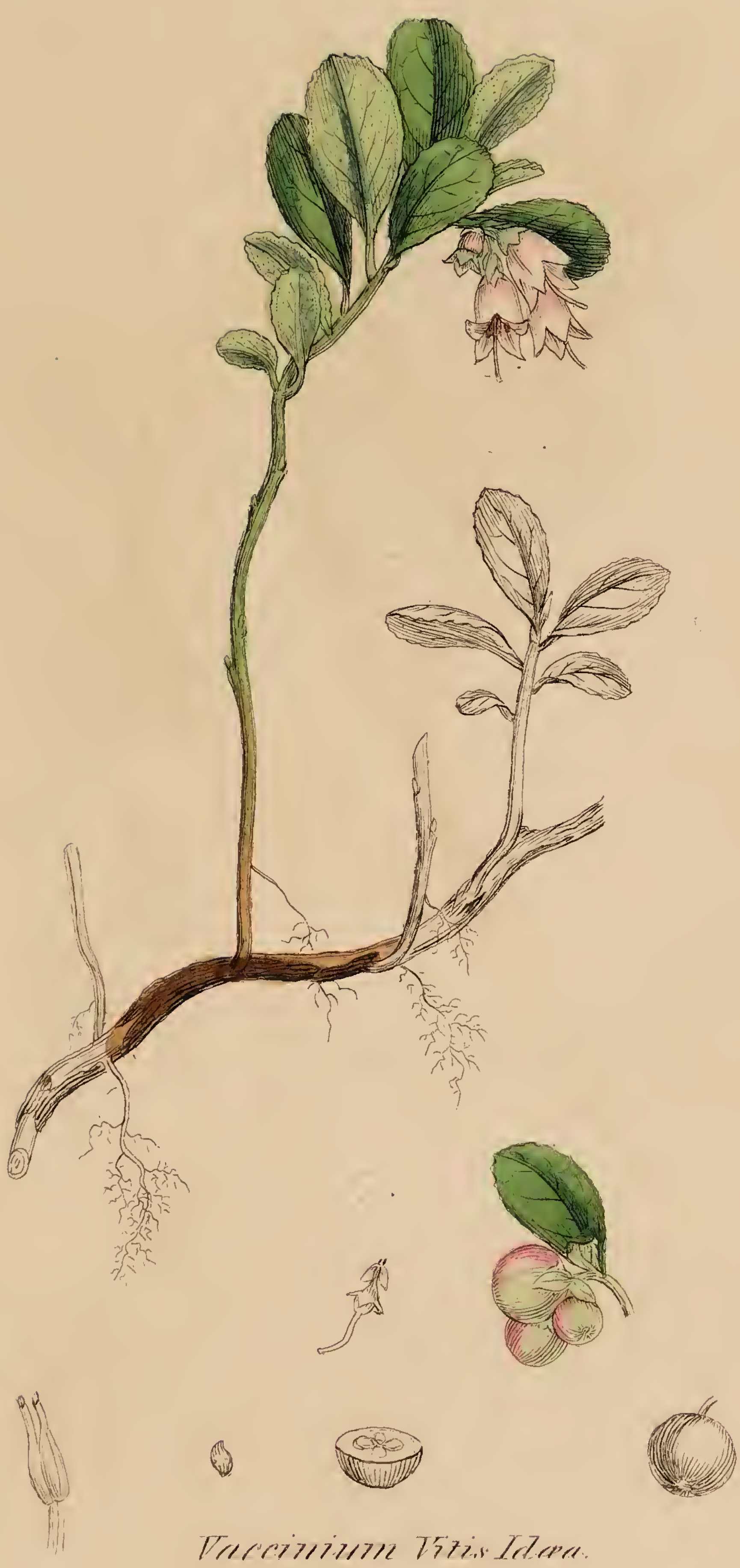


Vaccinium uliginosum.

[illegible]

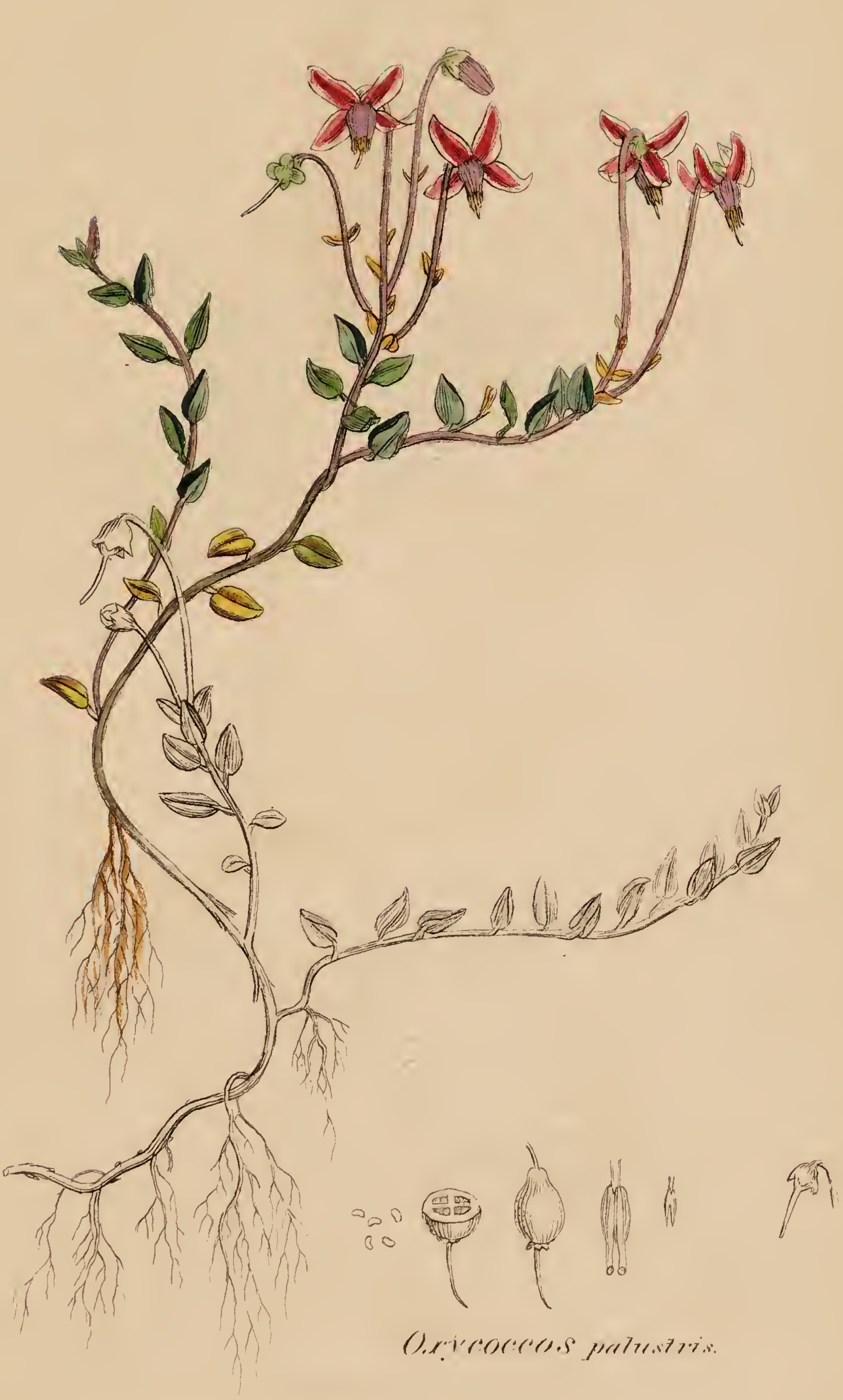
598.

553.



Vaccinium Vitis Idæa.

[illegible]

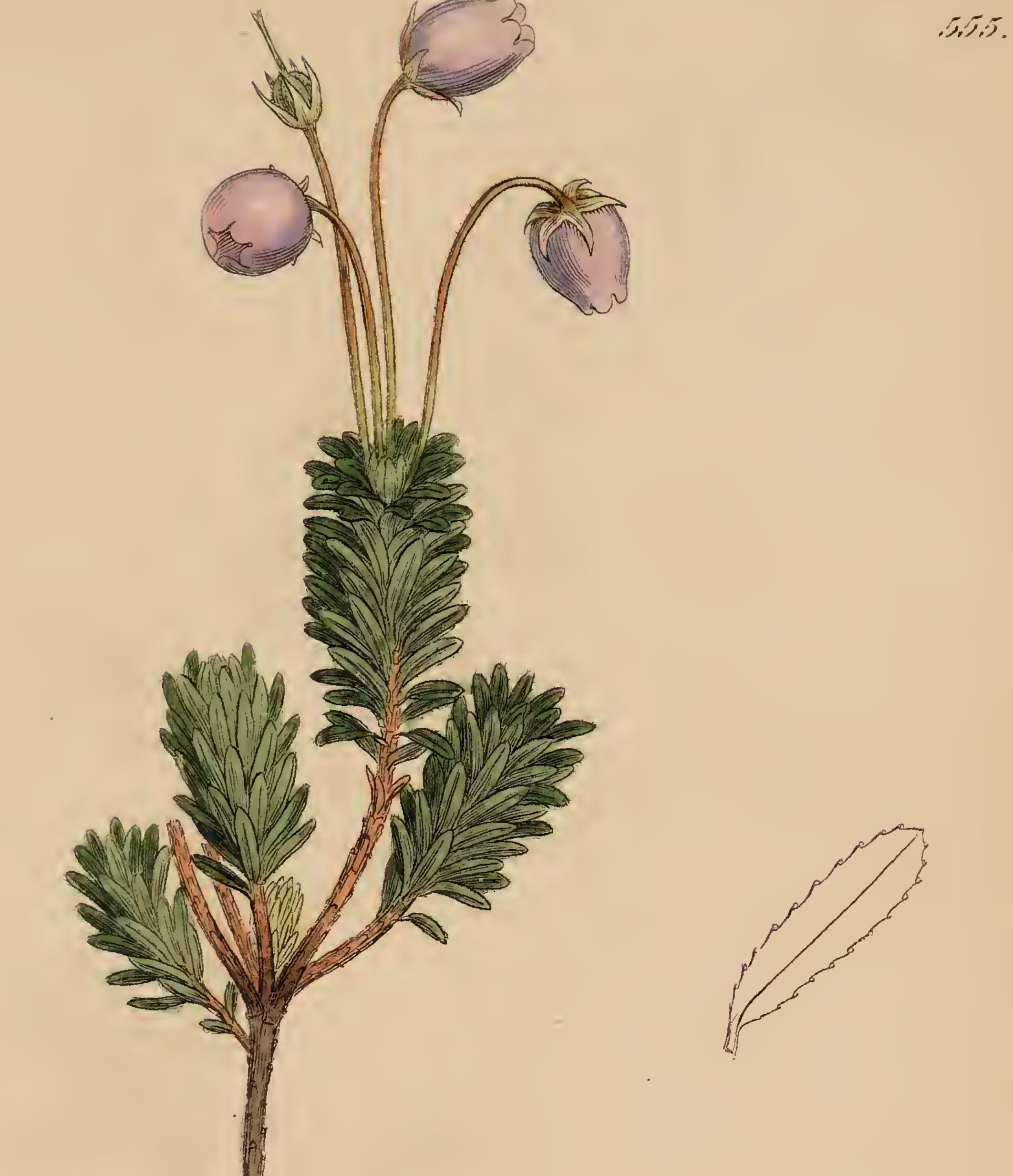


Oxycoccos palustris.

1796.

2469

555.

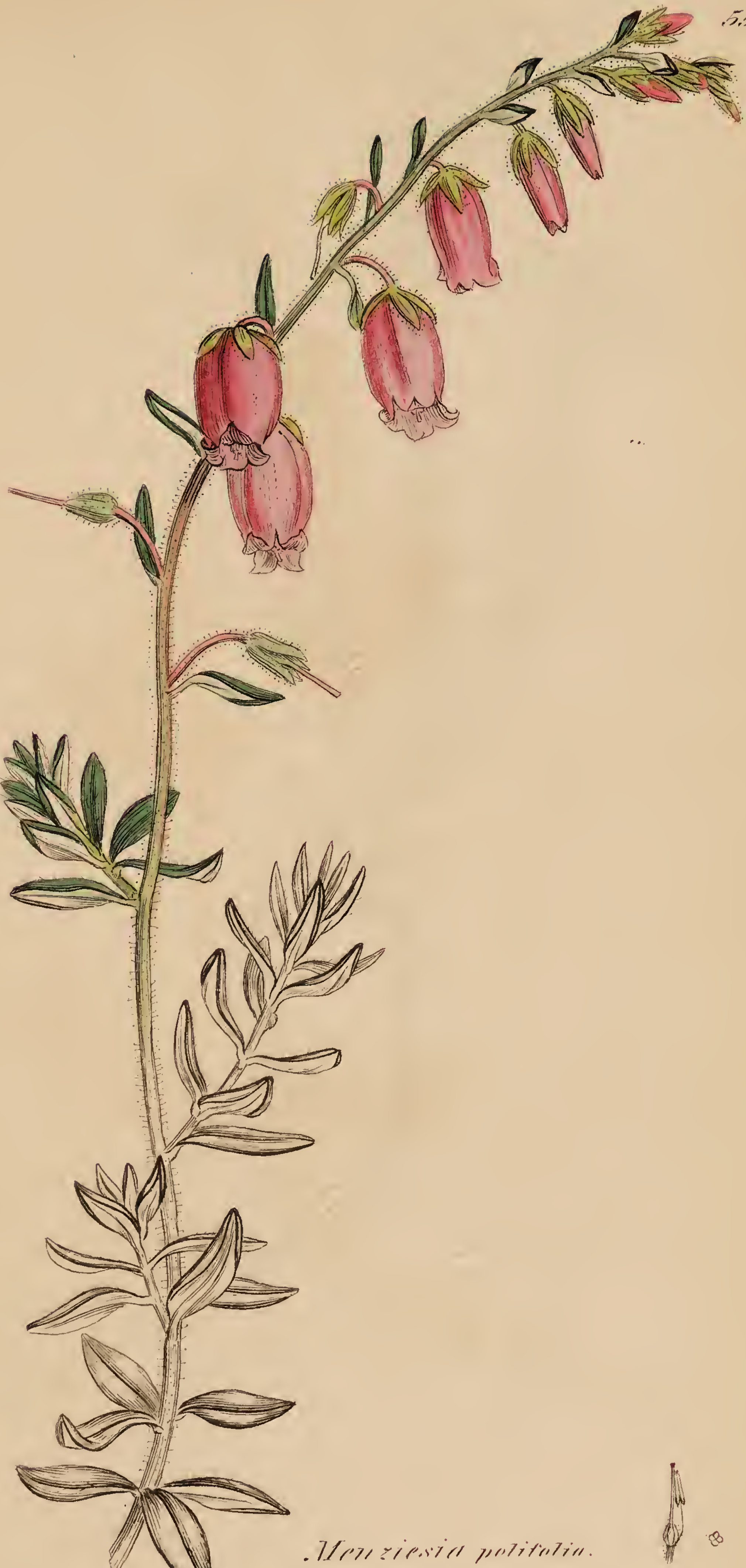


Menziesia cærulea.

Oct. 1. 1812 published by Jas. Sowerby London.

35

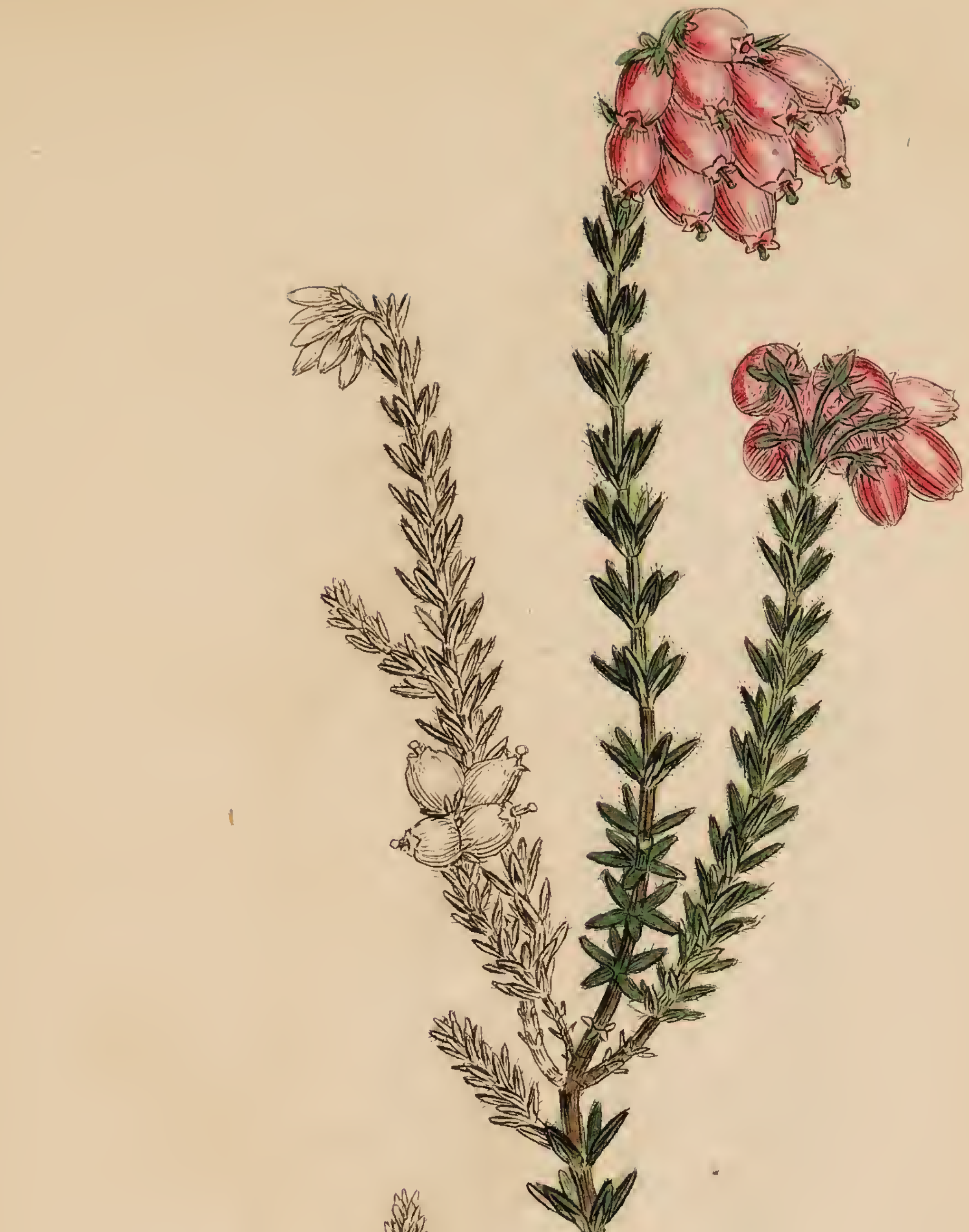
556.



Menziesia polifolia.

J. Sowerby del. Oct. 1. 1791.

1014
557.

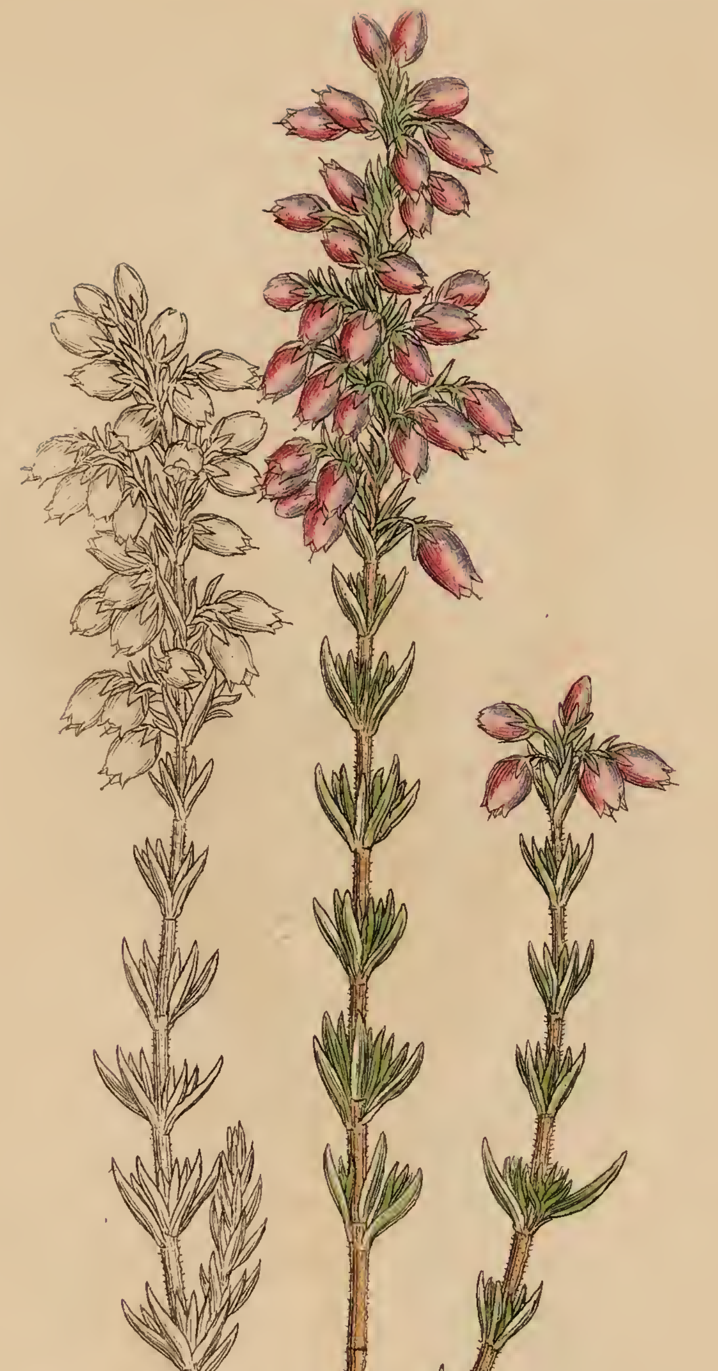


Erica tetralix.

April 1. 1802. Published by Jas. Sowerby London

1015.

558.

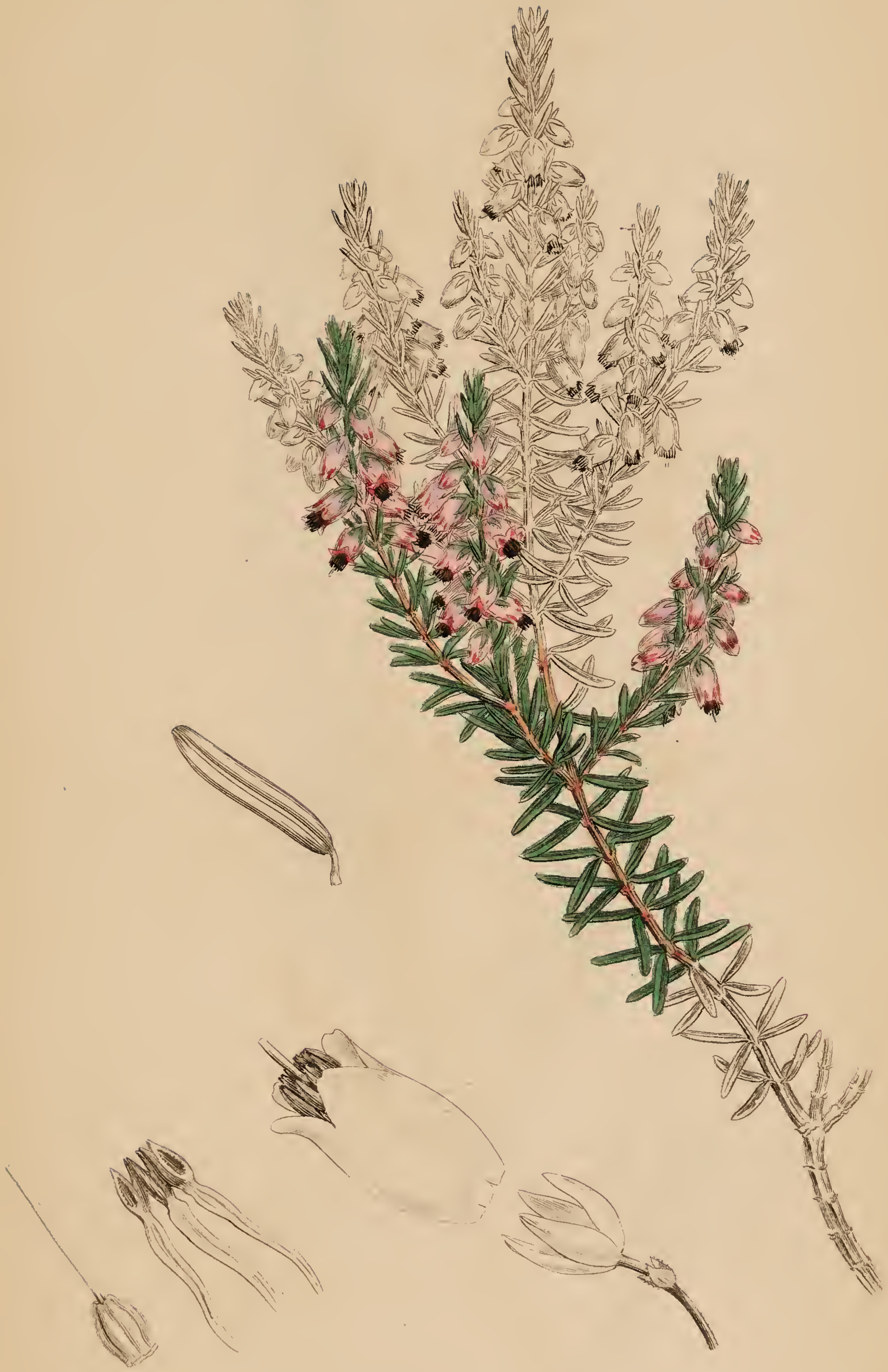


Erica cinerea.

[illegible]

2774.

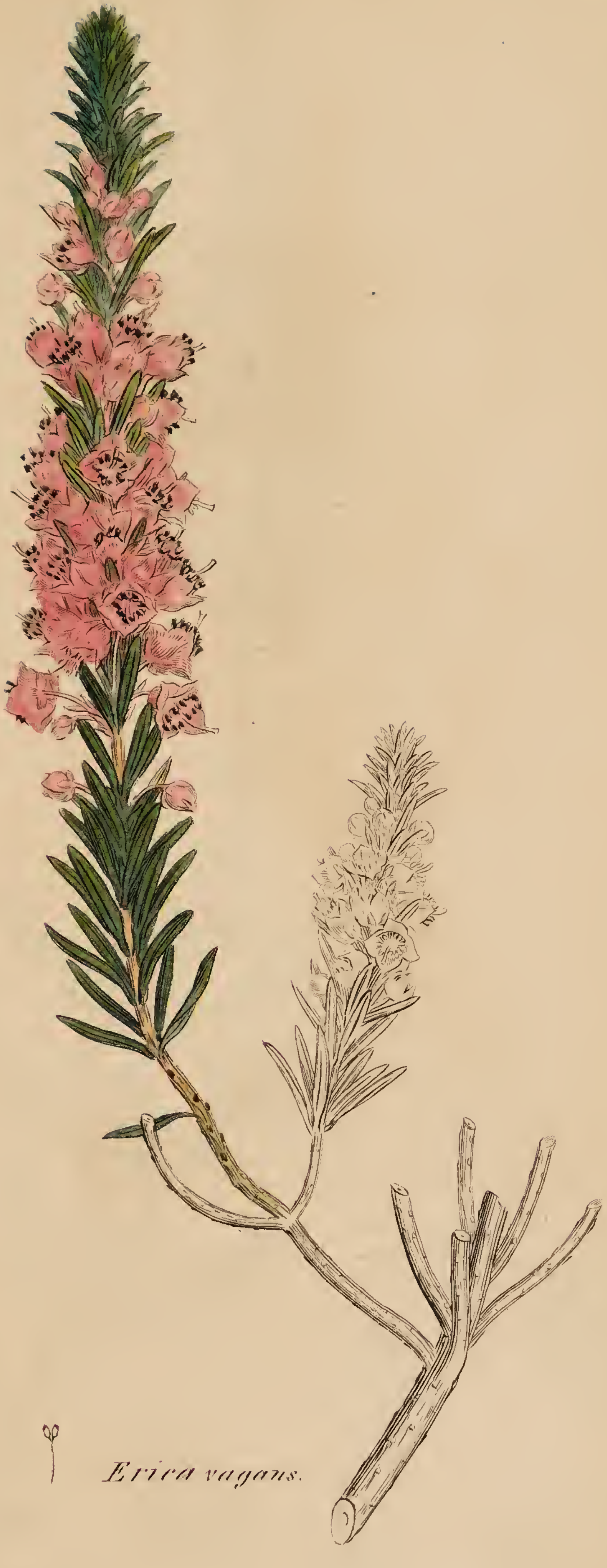
558*



July 1st 1833.

3

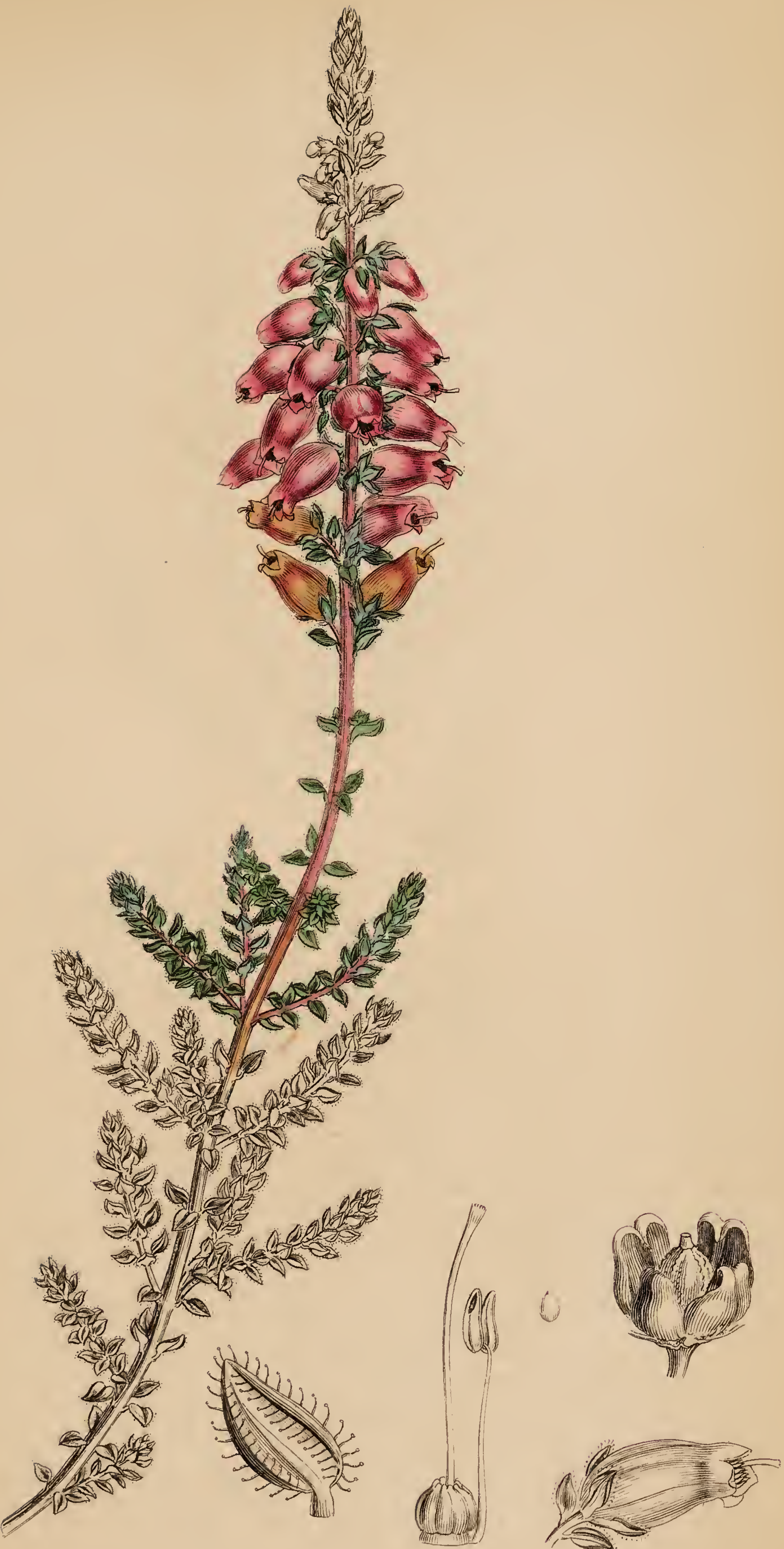
559.



Erica vagans.

J. Sowerby del. Nov.r 1. 1799

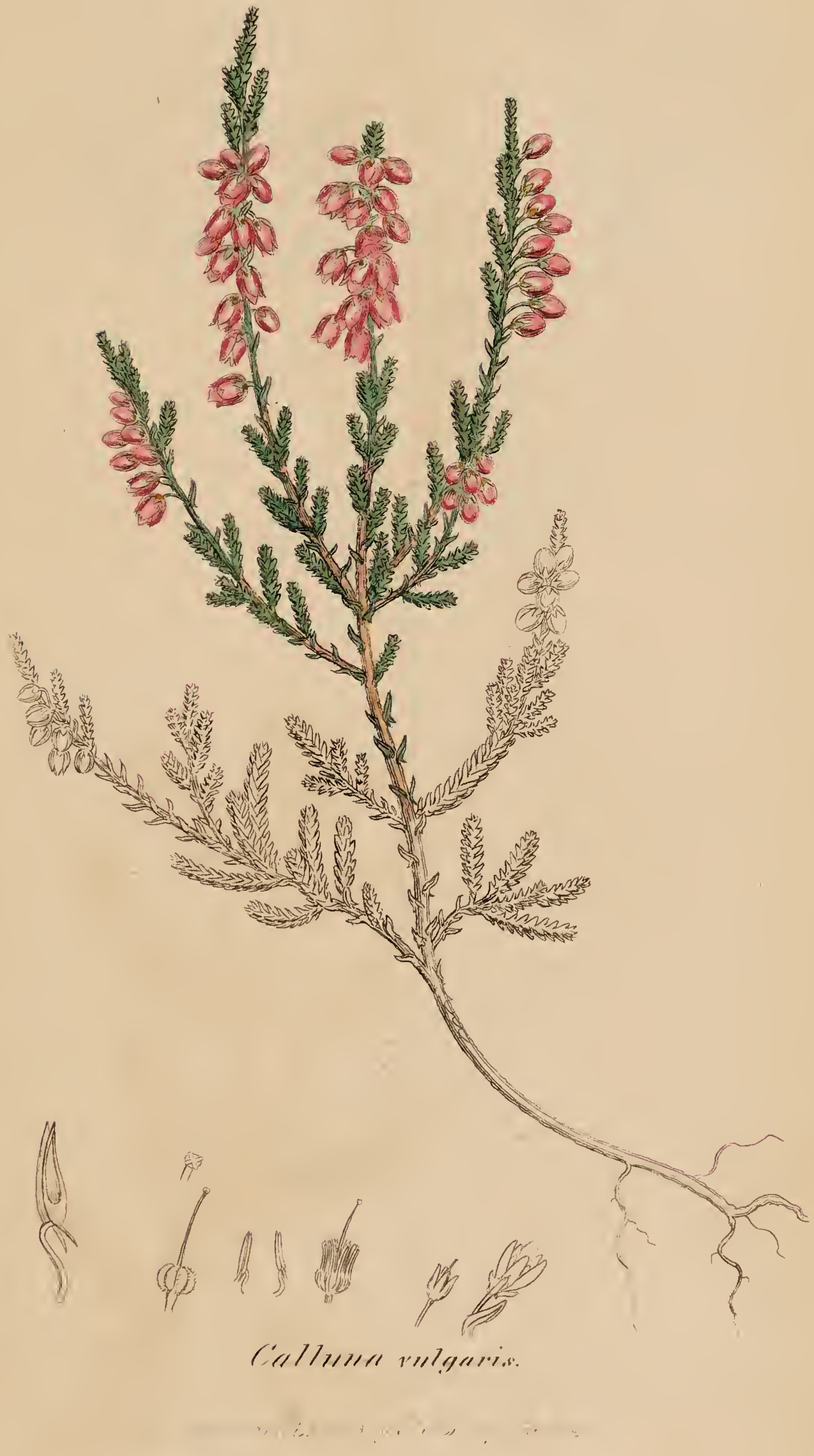
2618.
559*



January 1st 1830

1013.

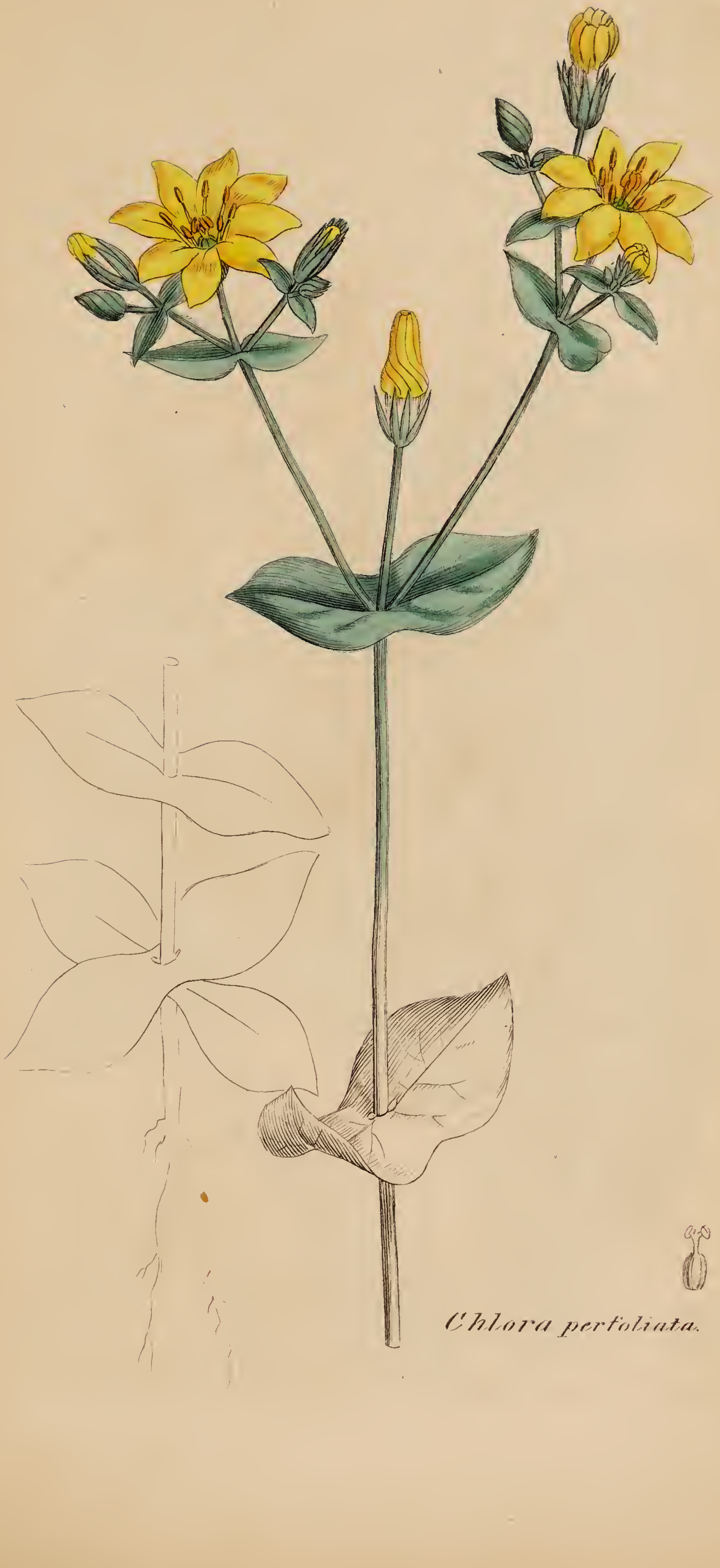
560.



Calluna vulgaris.

[illegible]

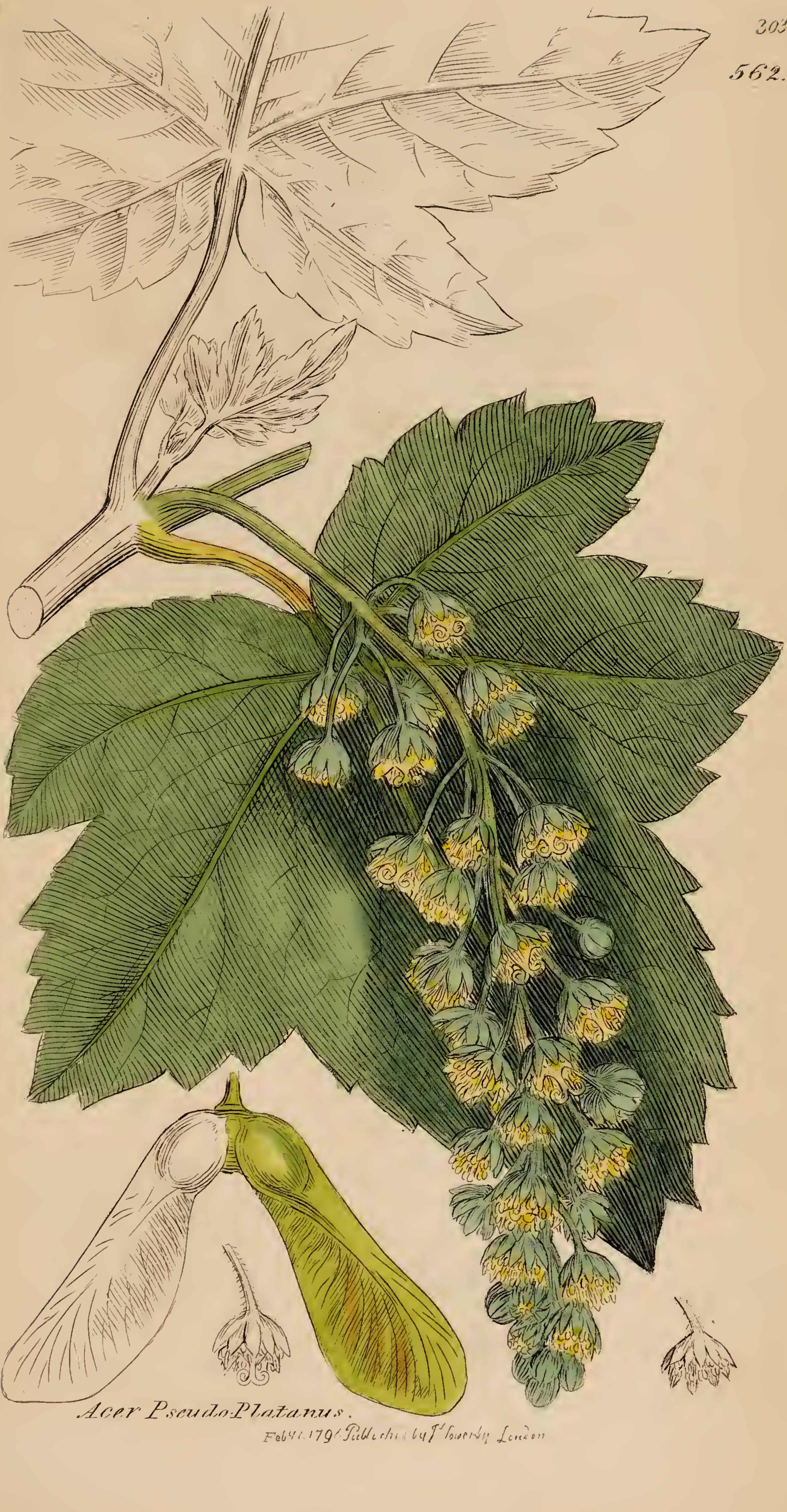
oo
561.



Chlora perfoliata.

303.

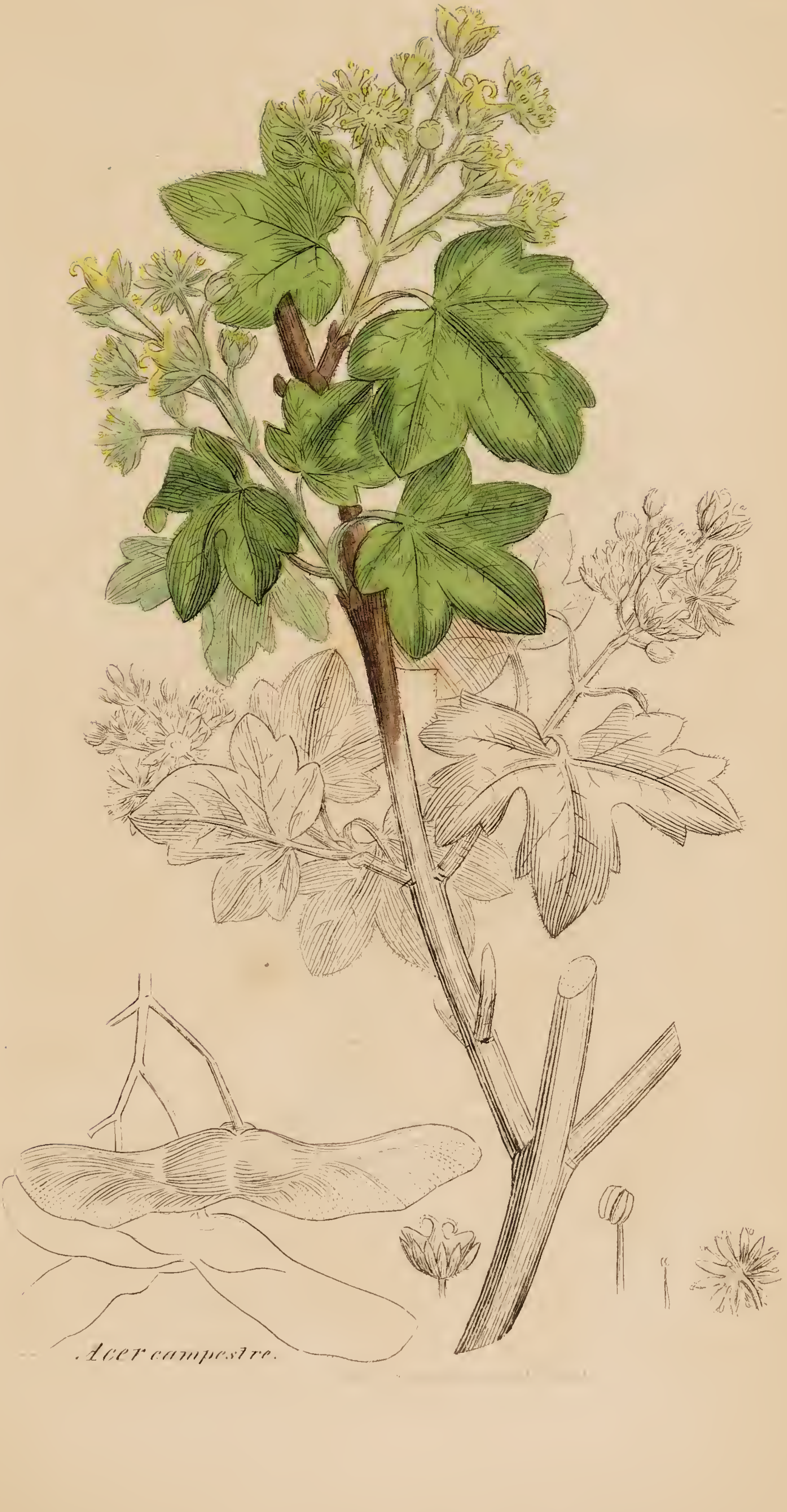
562.



Acer Pseudo-Platanus.

Feb 1. 1796 Publish'd by J. Sowerby London

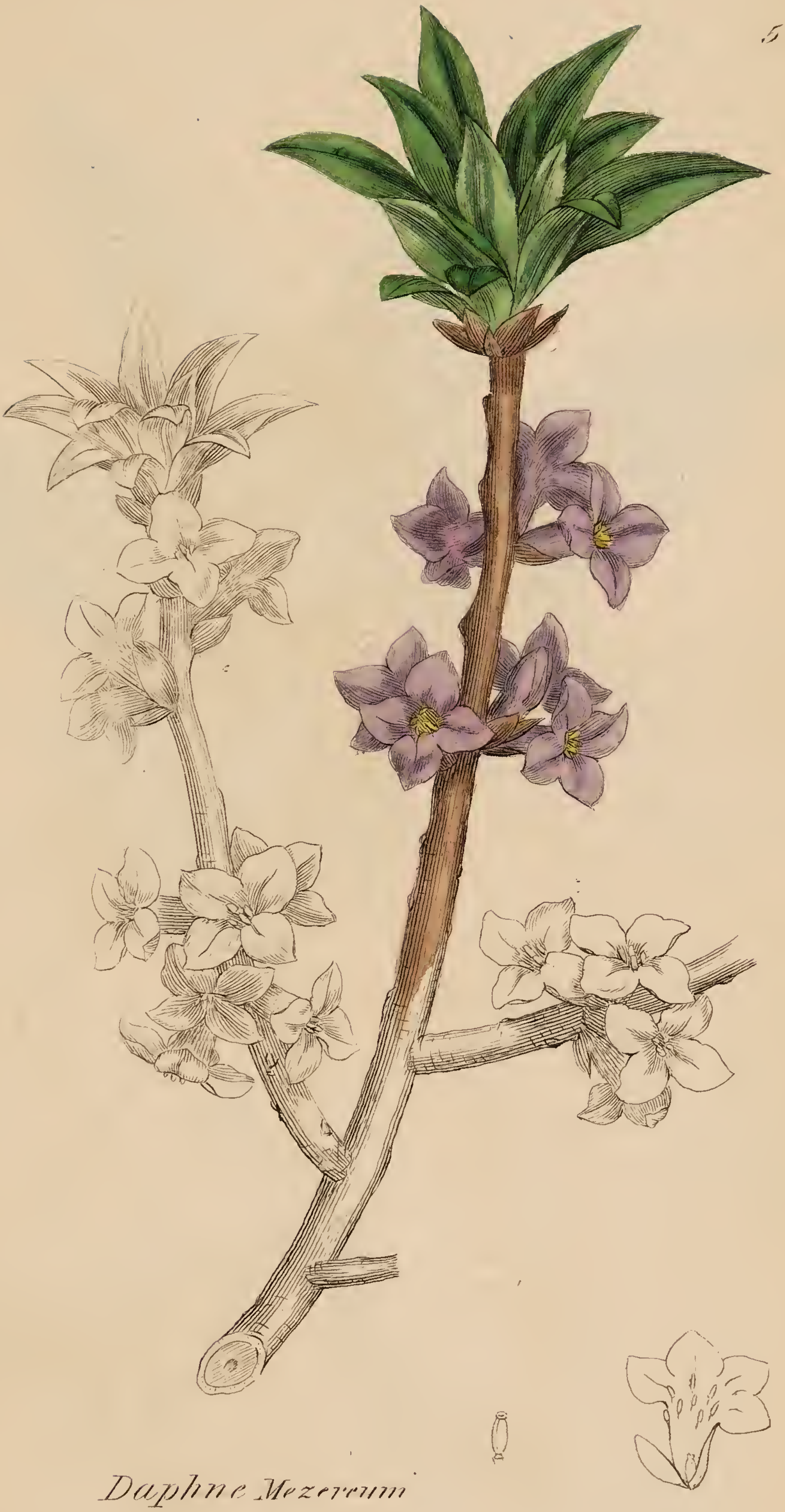
304
563.



Acer campestre.

1381

564.

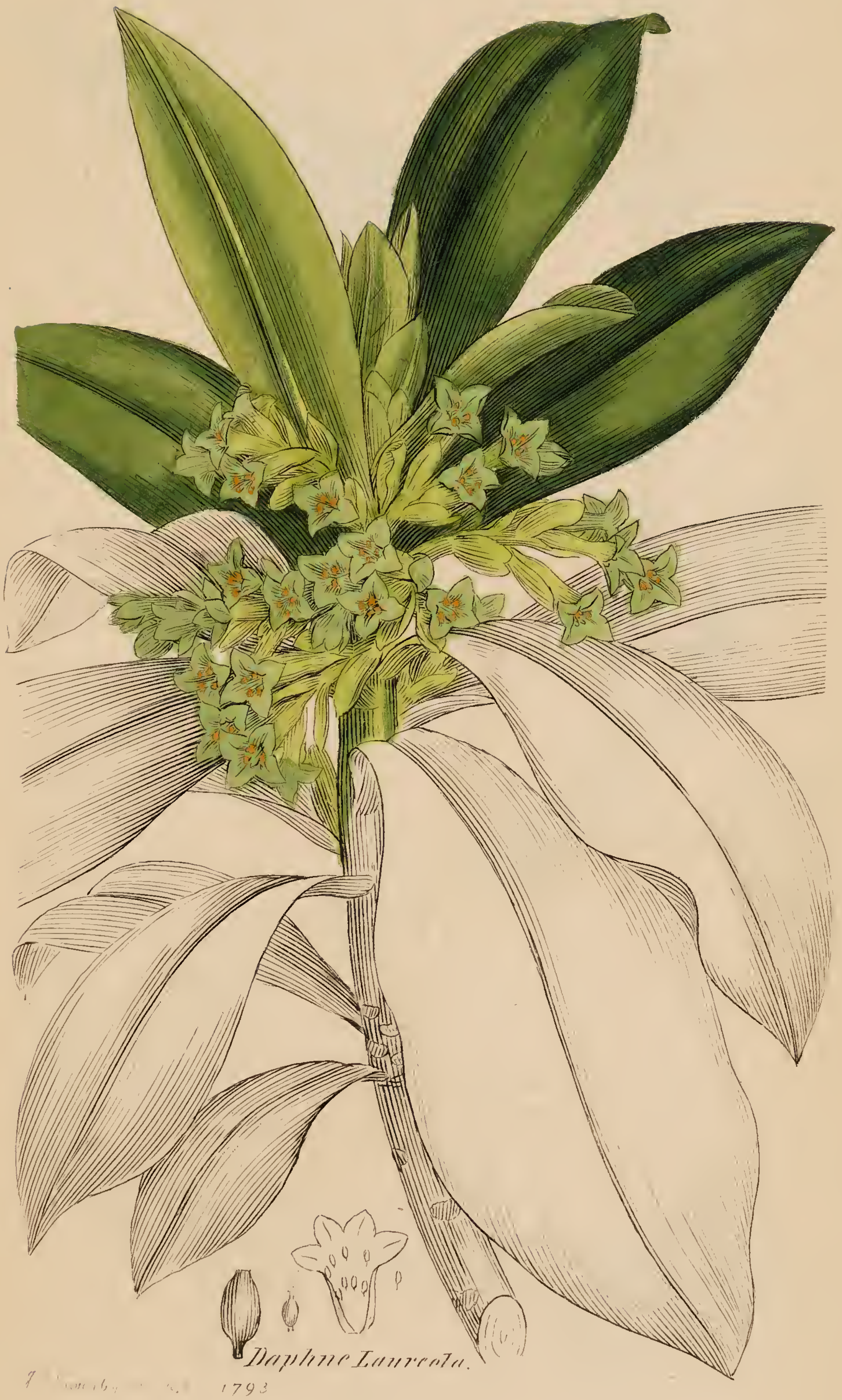


Daphne Mezereum

Novr. 1. 1804. Published by Jas. Sowerby, London.

119

565.

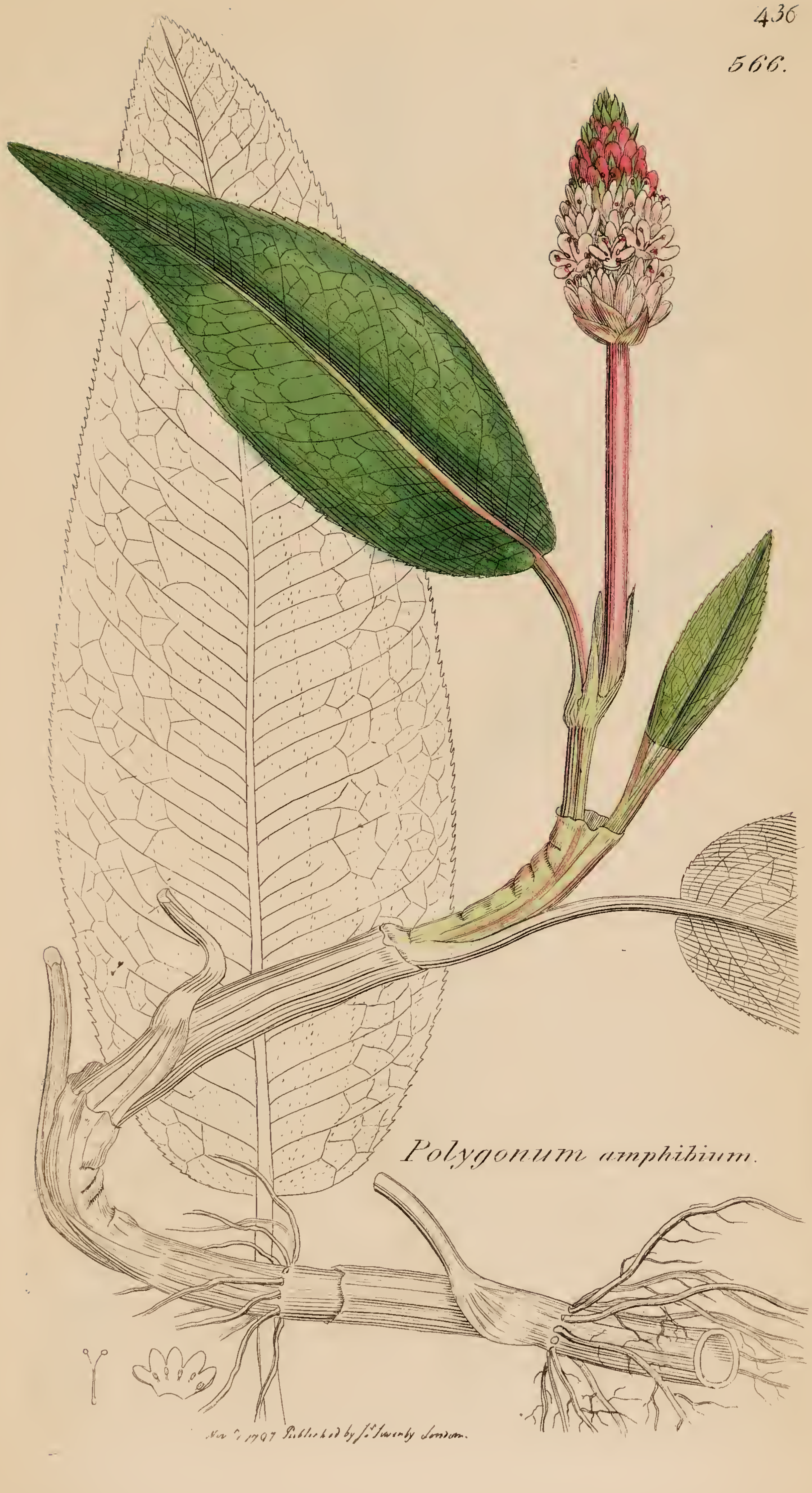


Daphne Laureola.

J. Sowerby del. 1793

436

566.

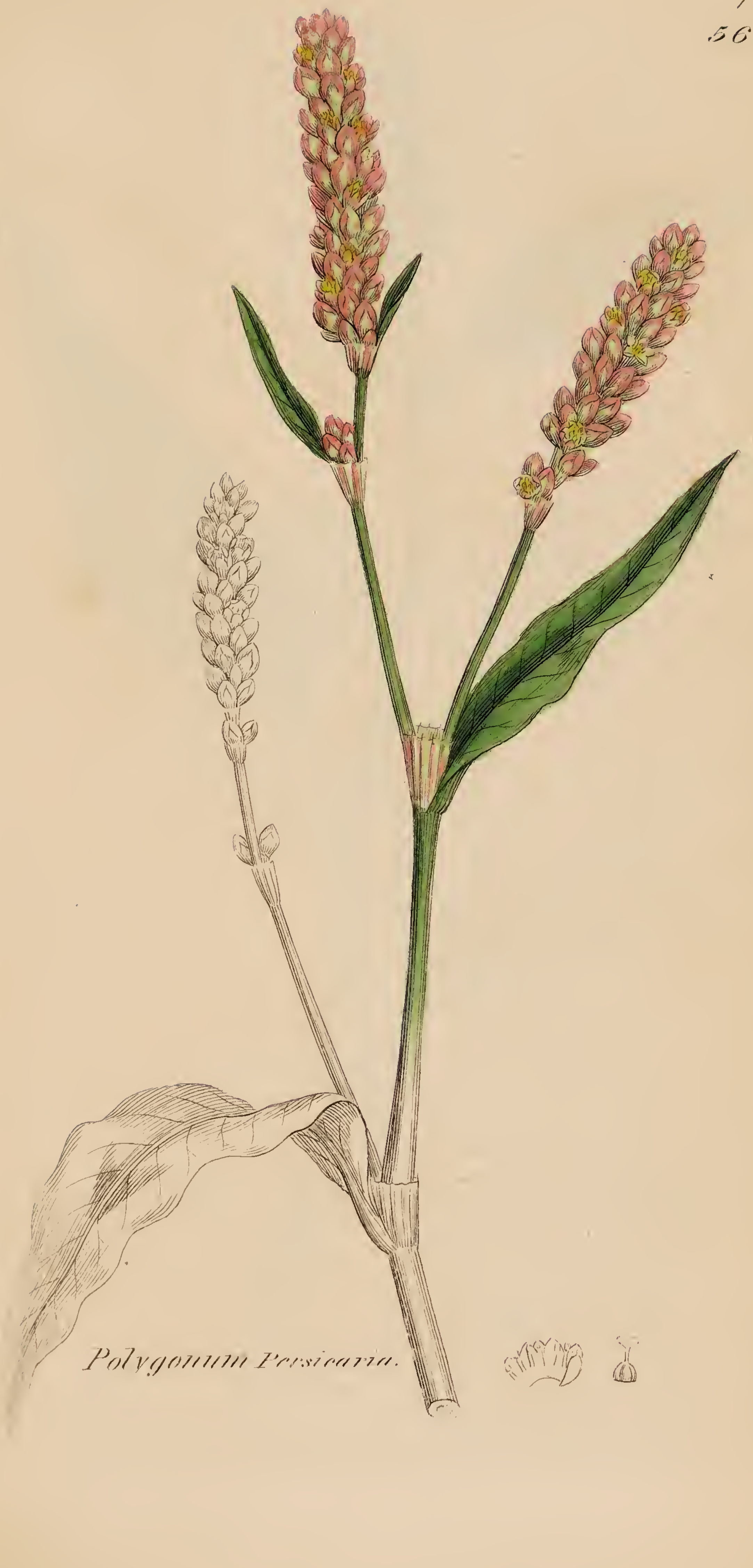


Polygonum amphibium.

Nov. 1 1797 Published by Jas Sowerby London.

756.

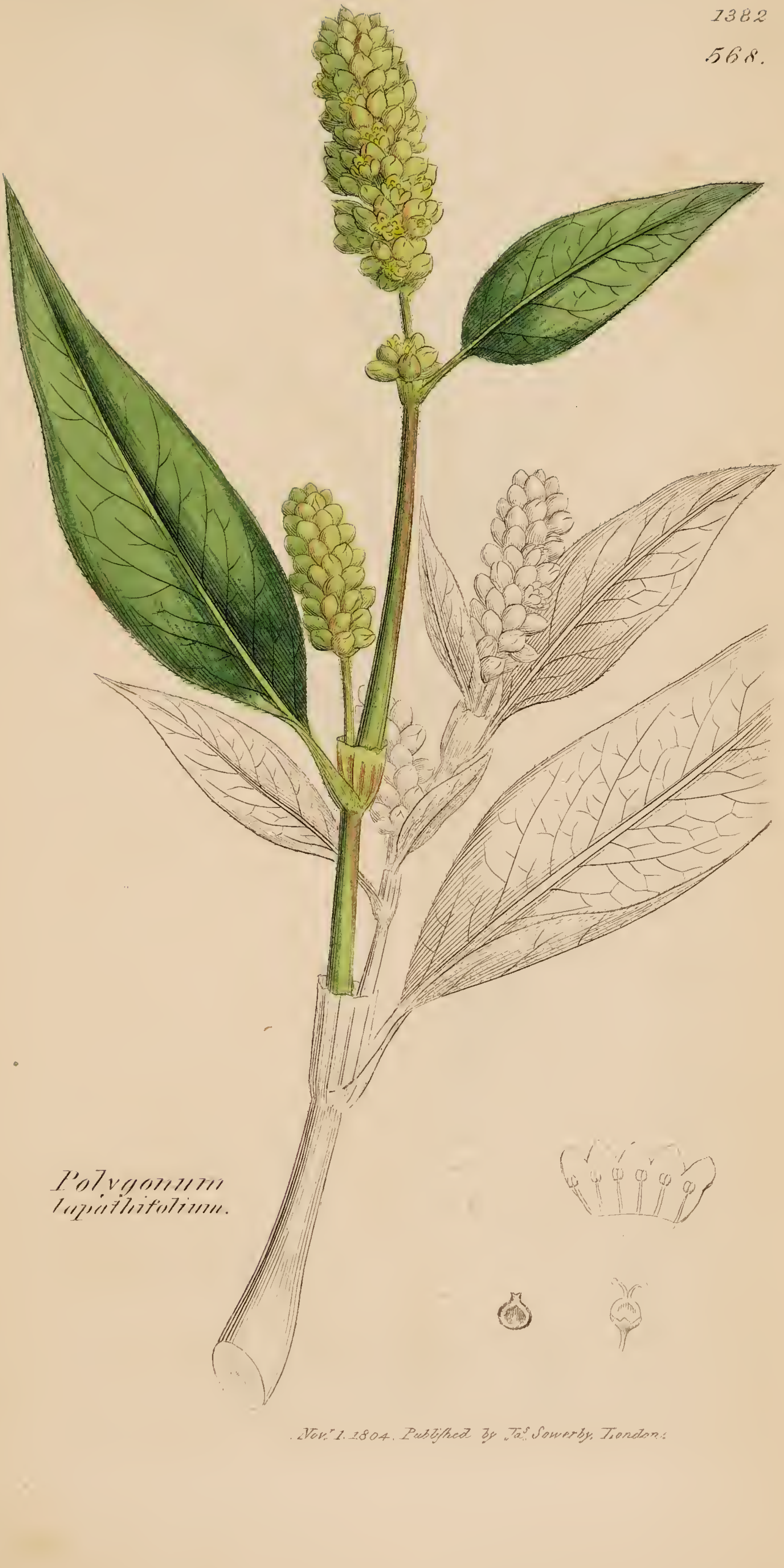
567.



Polygonum Persicaria.

1382

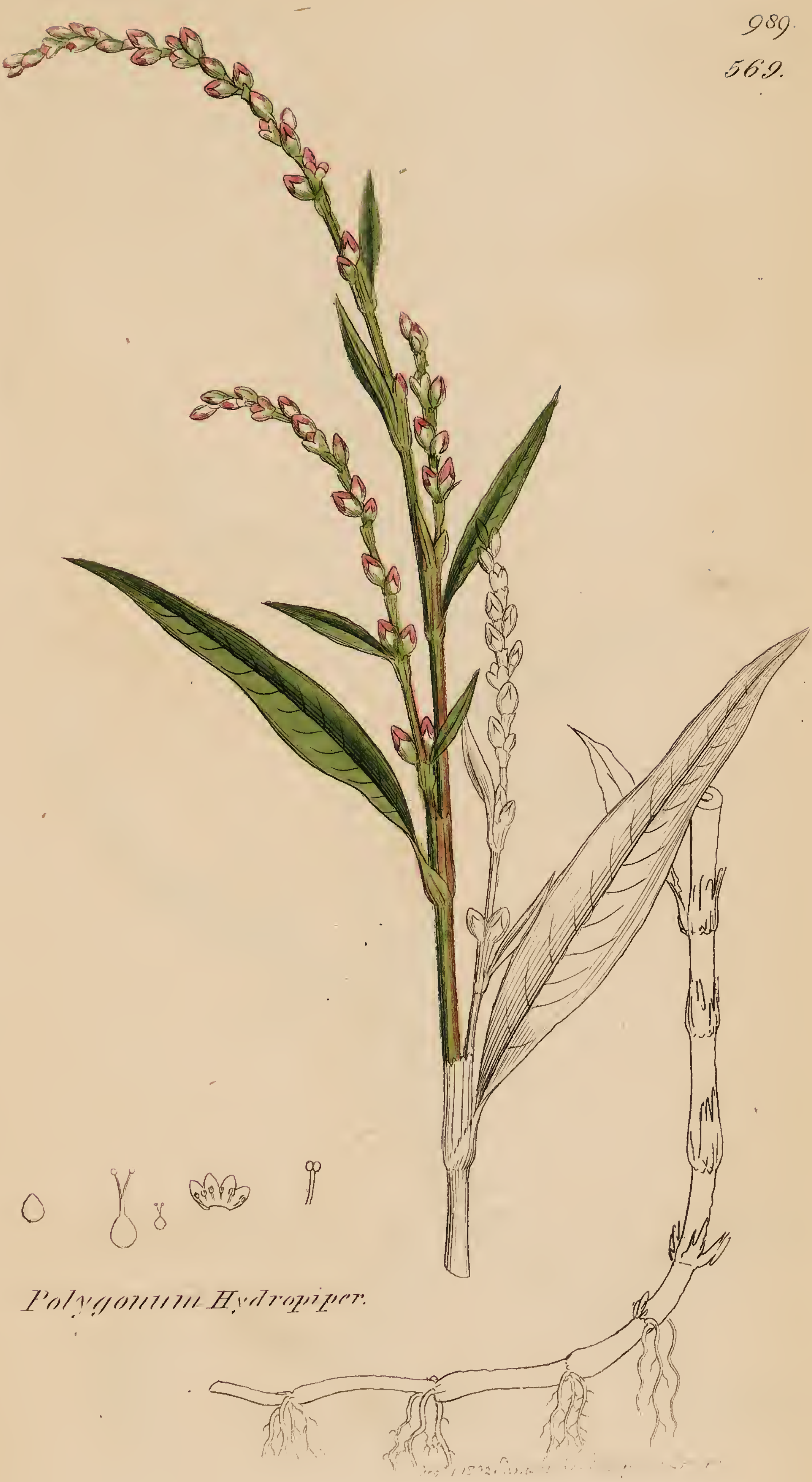
568.



Polygonum lapathifolium.

Nov.r 1. 1804. Published by Ja.s Sowerby, London.

989.
569.

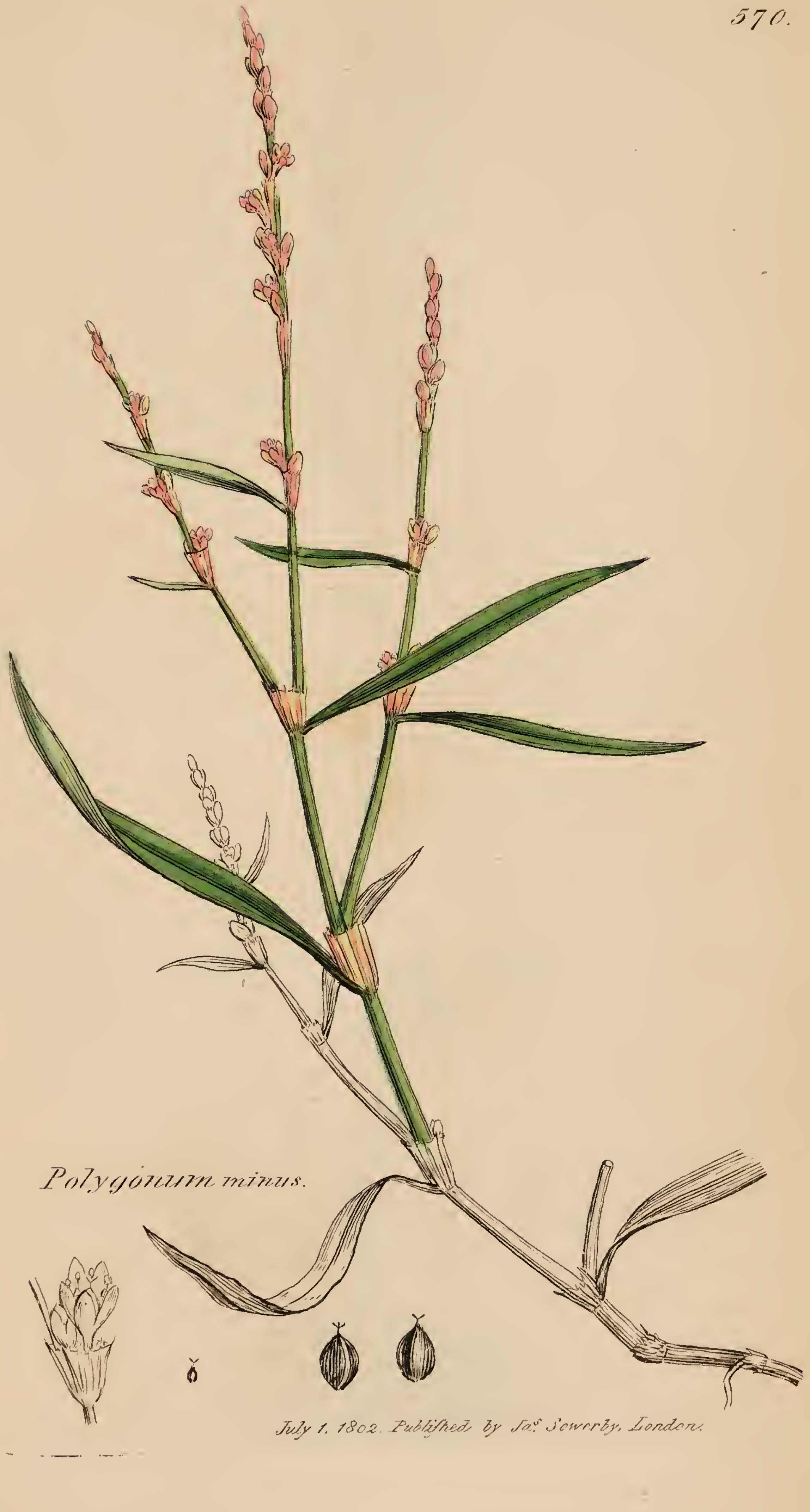


Polygonum Hydropiper.

[illegible] 1 1832 [illegible]

1043

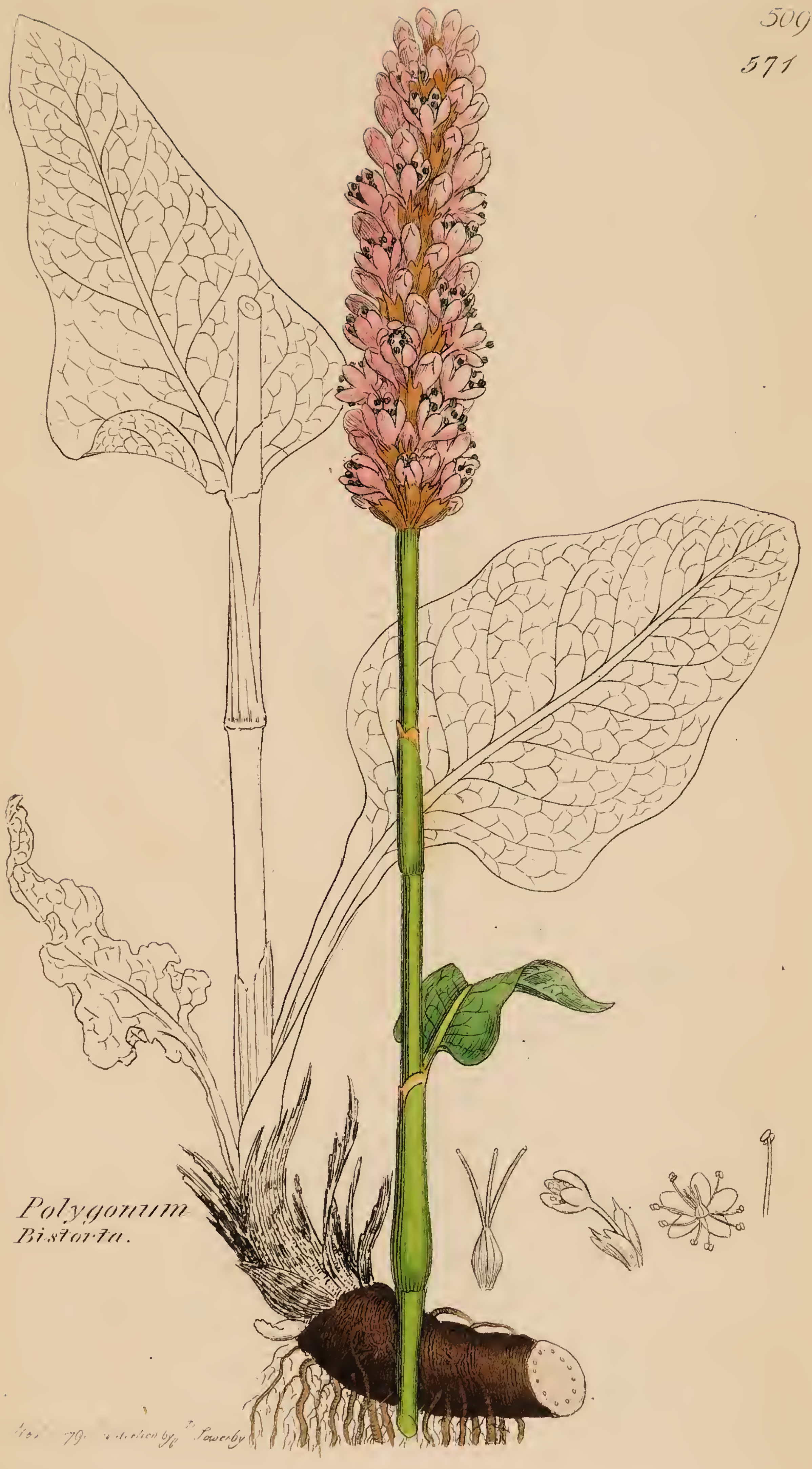
570.



Polygonum minus.

July 1. 1802. Published by Jas. Sowerby, London.

509.
571

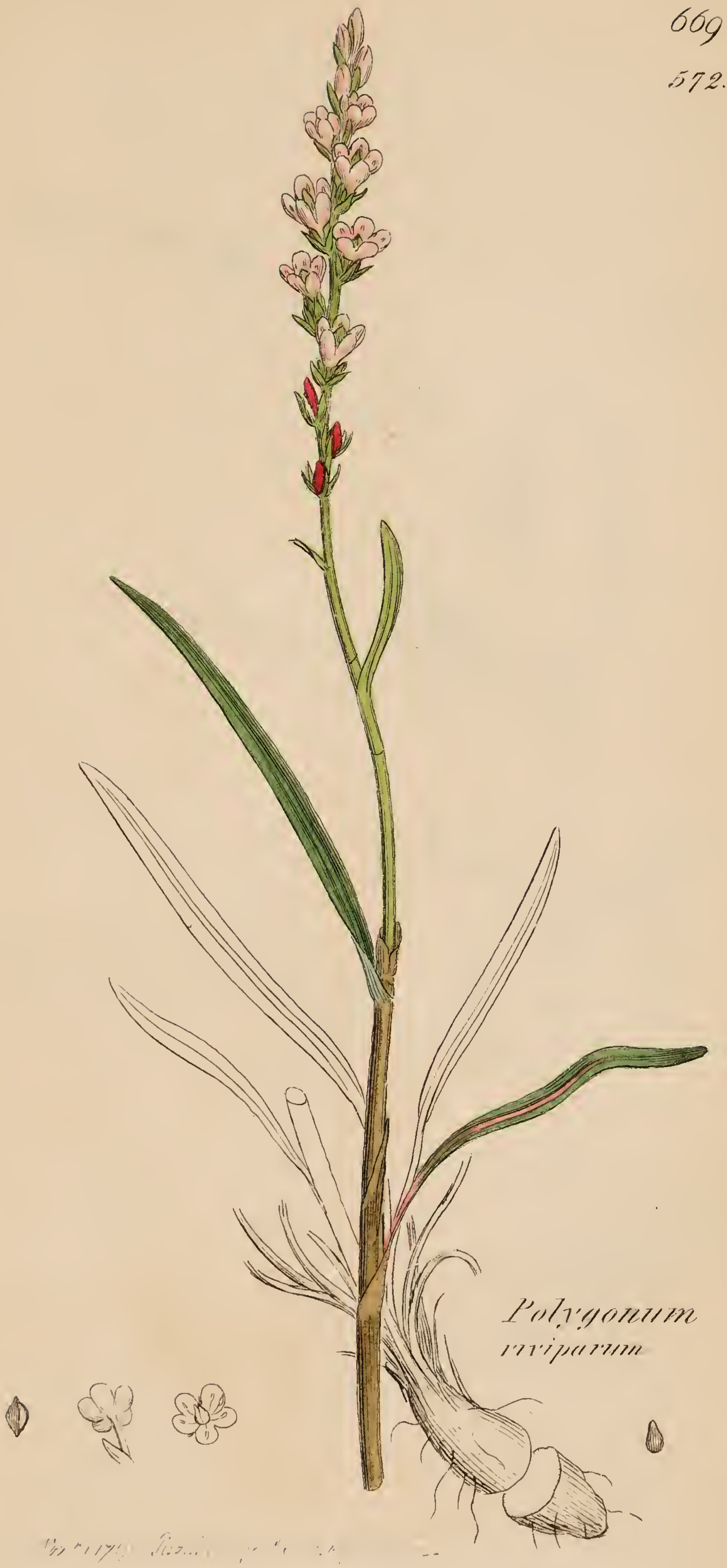


Polygonum
Bistorta.

Nov. 1. 1799 Published by J. Sowerby

669.

572.

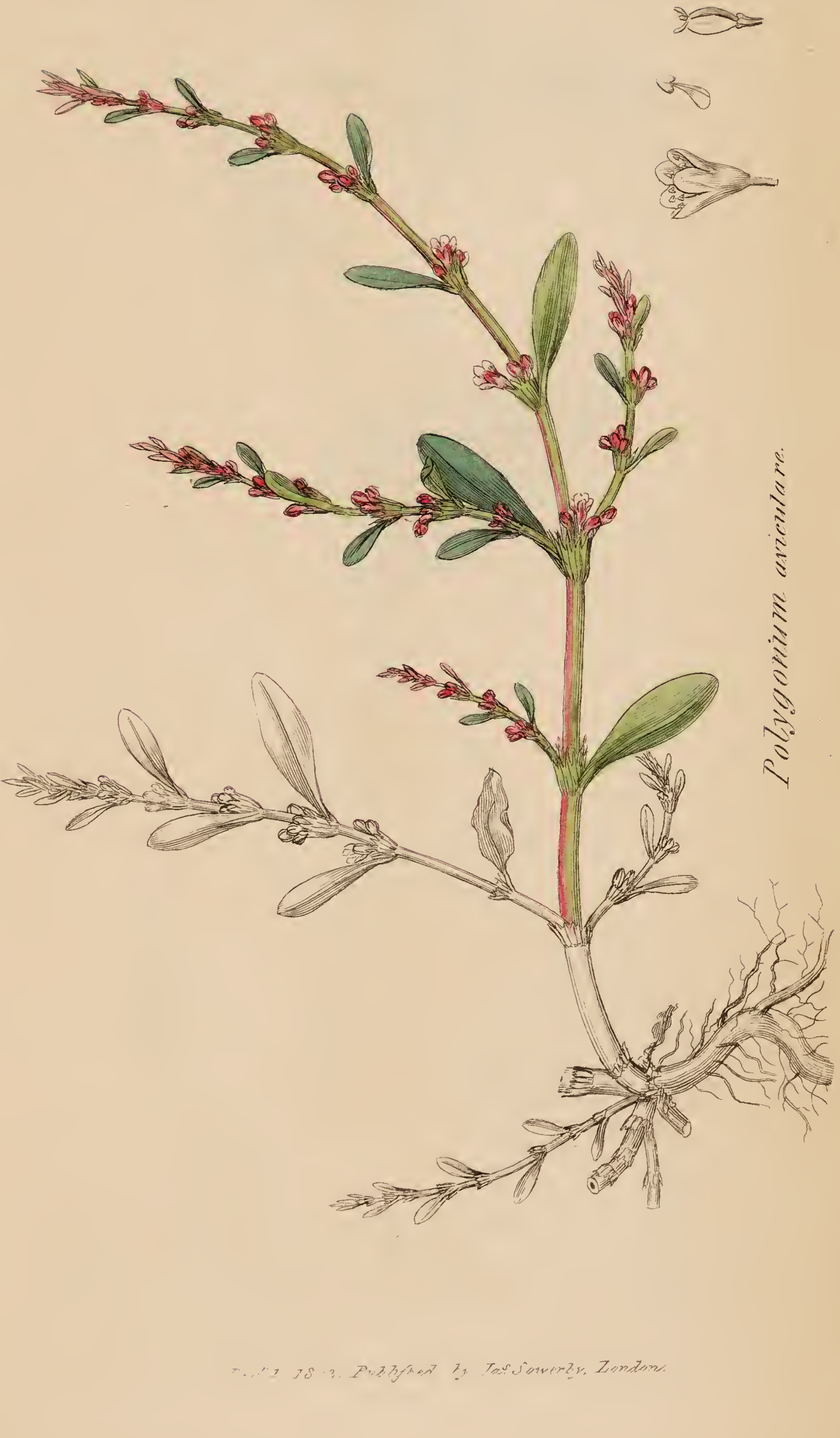


Polygonum viviparum

[illegible]

1252

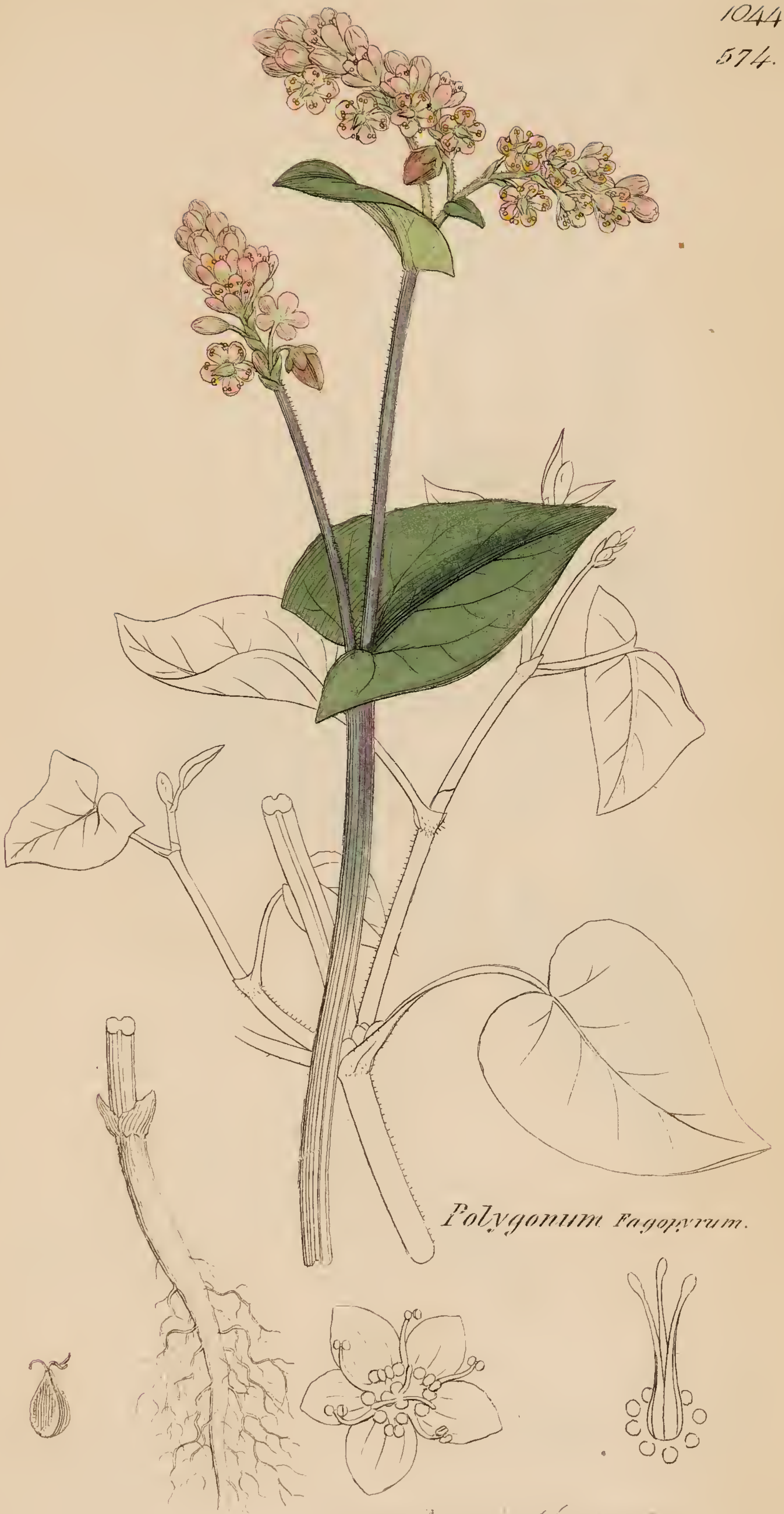
573.



Polygonum aviculare.

[illegible] 18 3. Published by Jas. Sowerby, London.

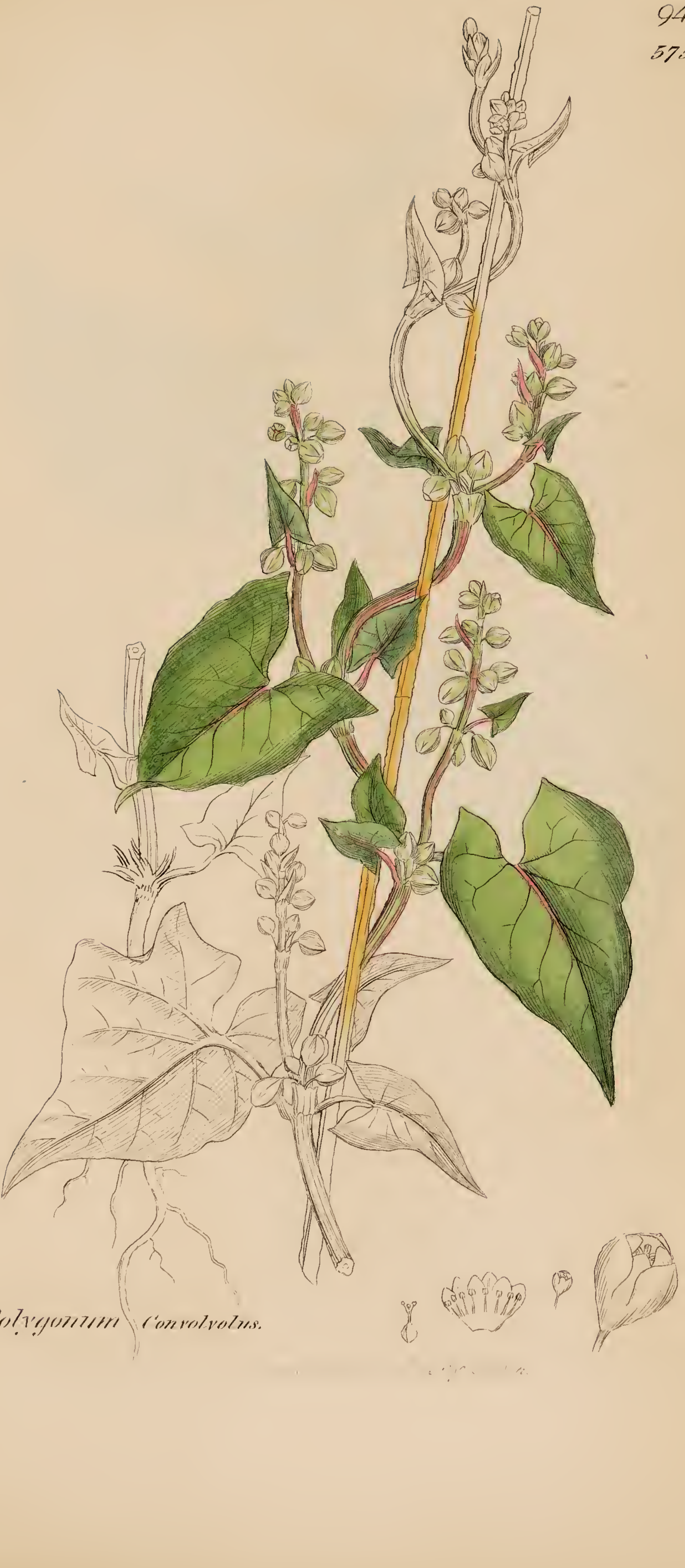
1044.
574.



Polygonum Fagopyrum.

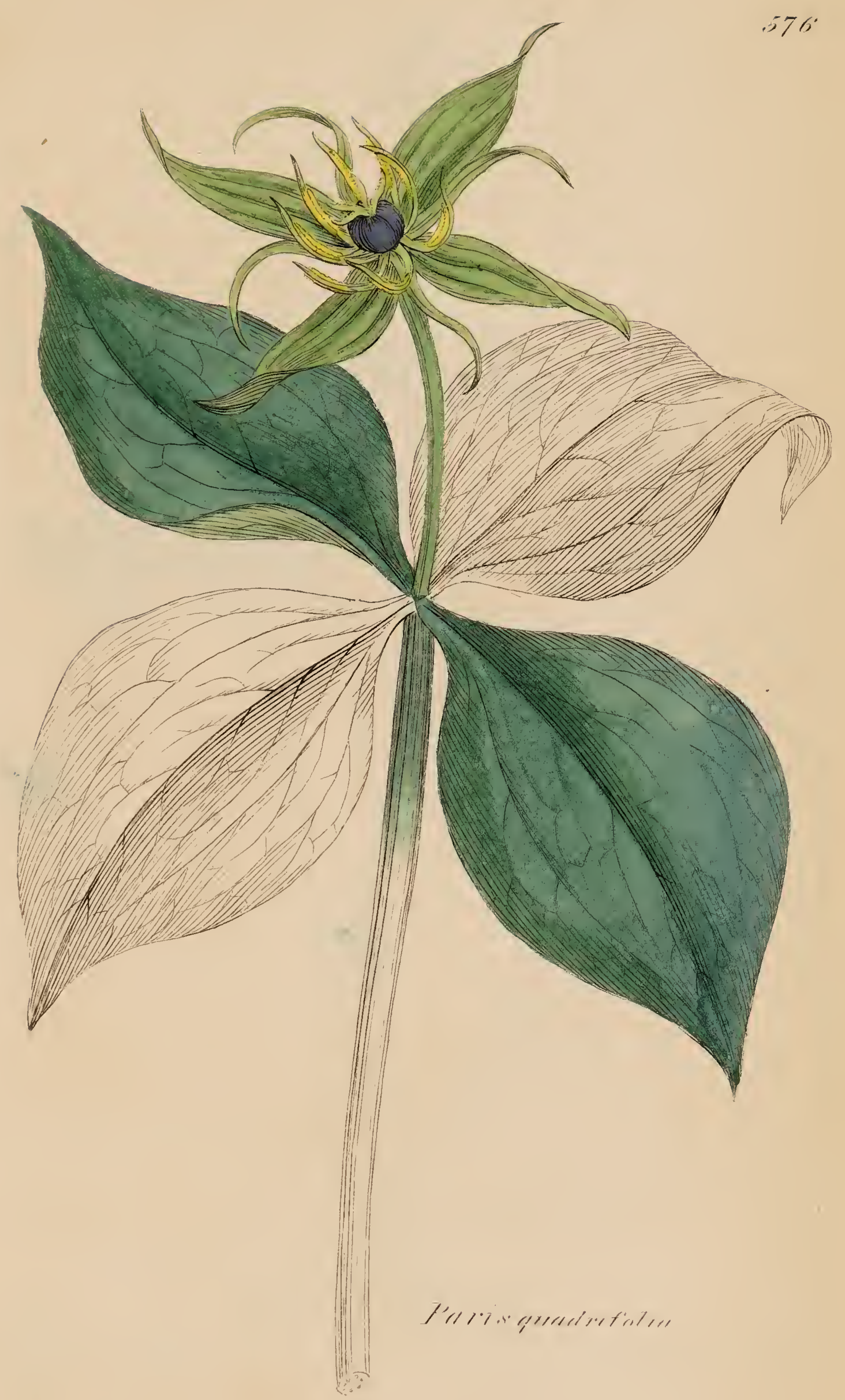
[illegible]

941.
575.



Polygonum Convolvulus.

7
576

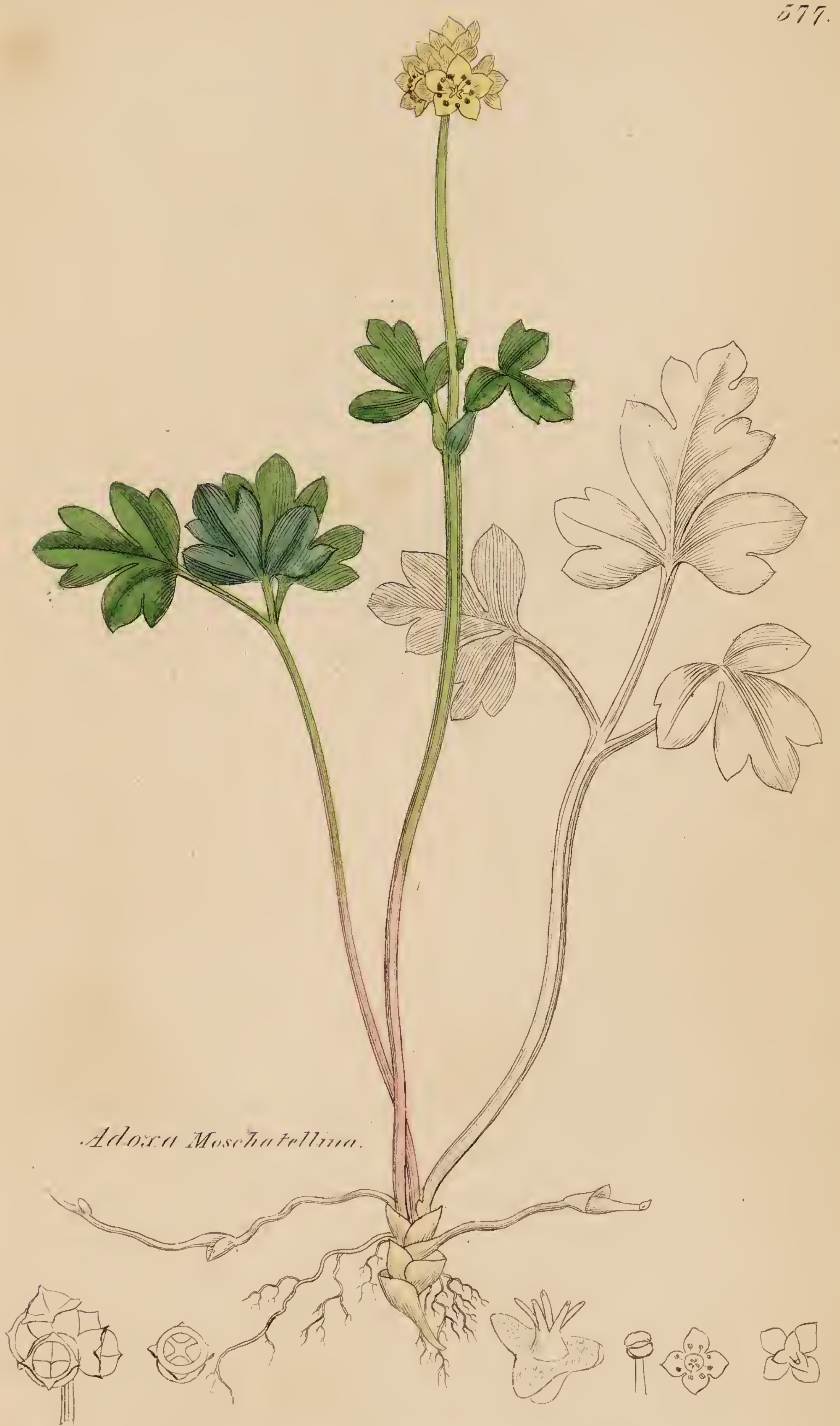


Paris quadrifolia

J. Sowerby delt. Feby 1 1791

433

577.

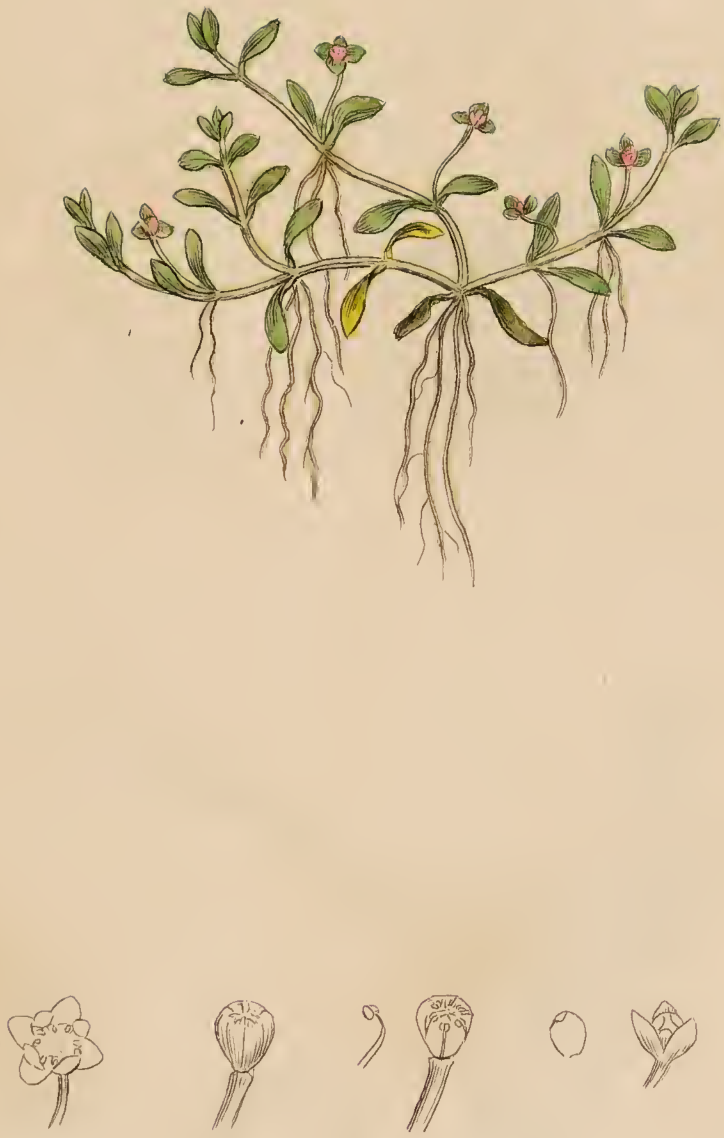


Adoxa Moschatellina.

Mar. 1 1798 Publish'd by J. Sowerby London

955

578.

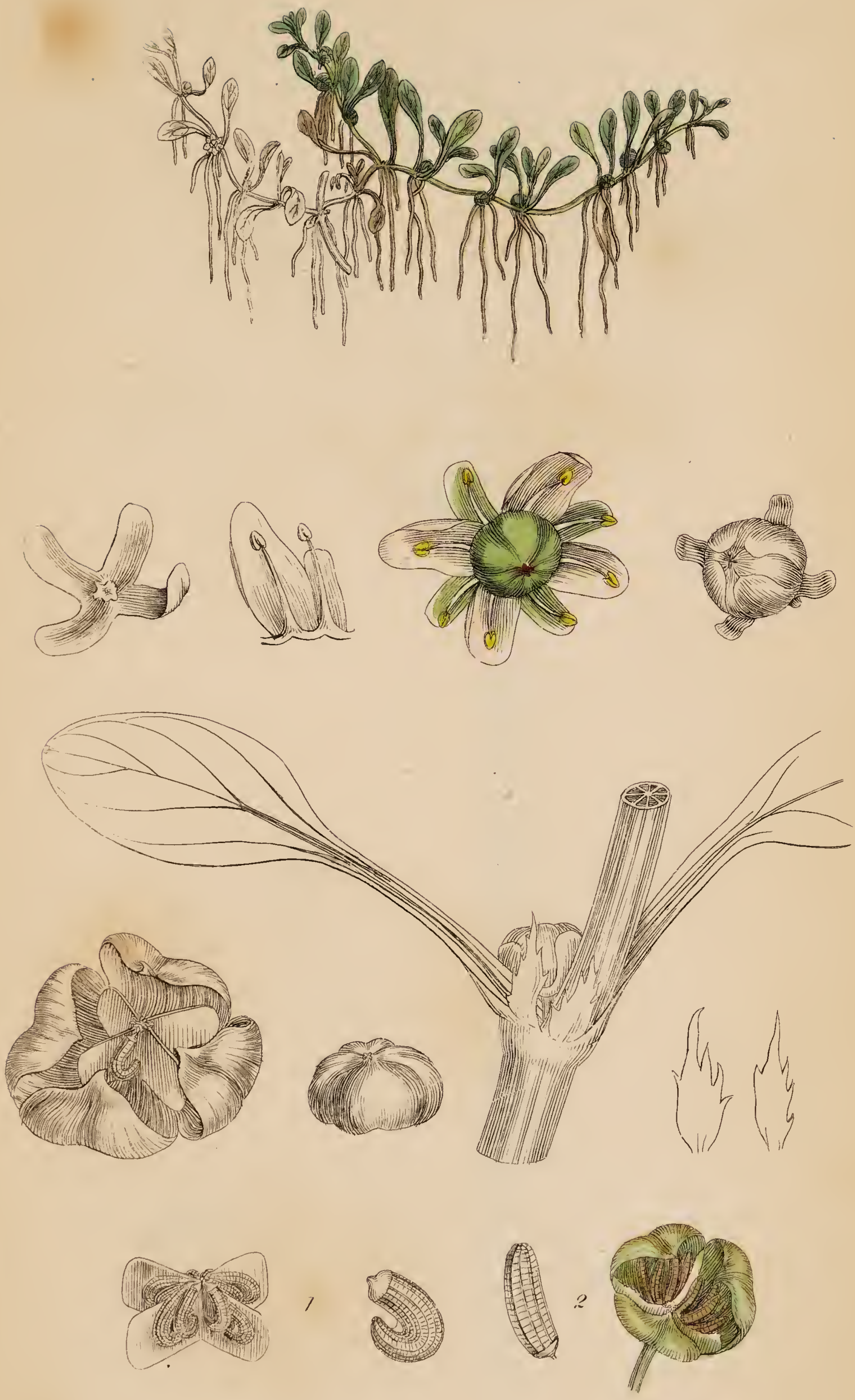


Elatine tripetala.

Dec. 1. 1801. Published by Jas. Sowerby, London.

2670.

578*

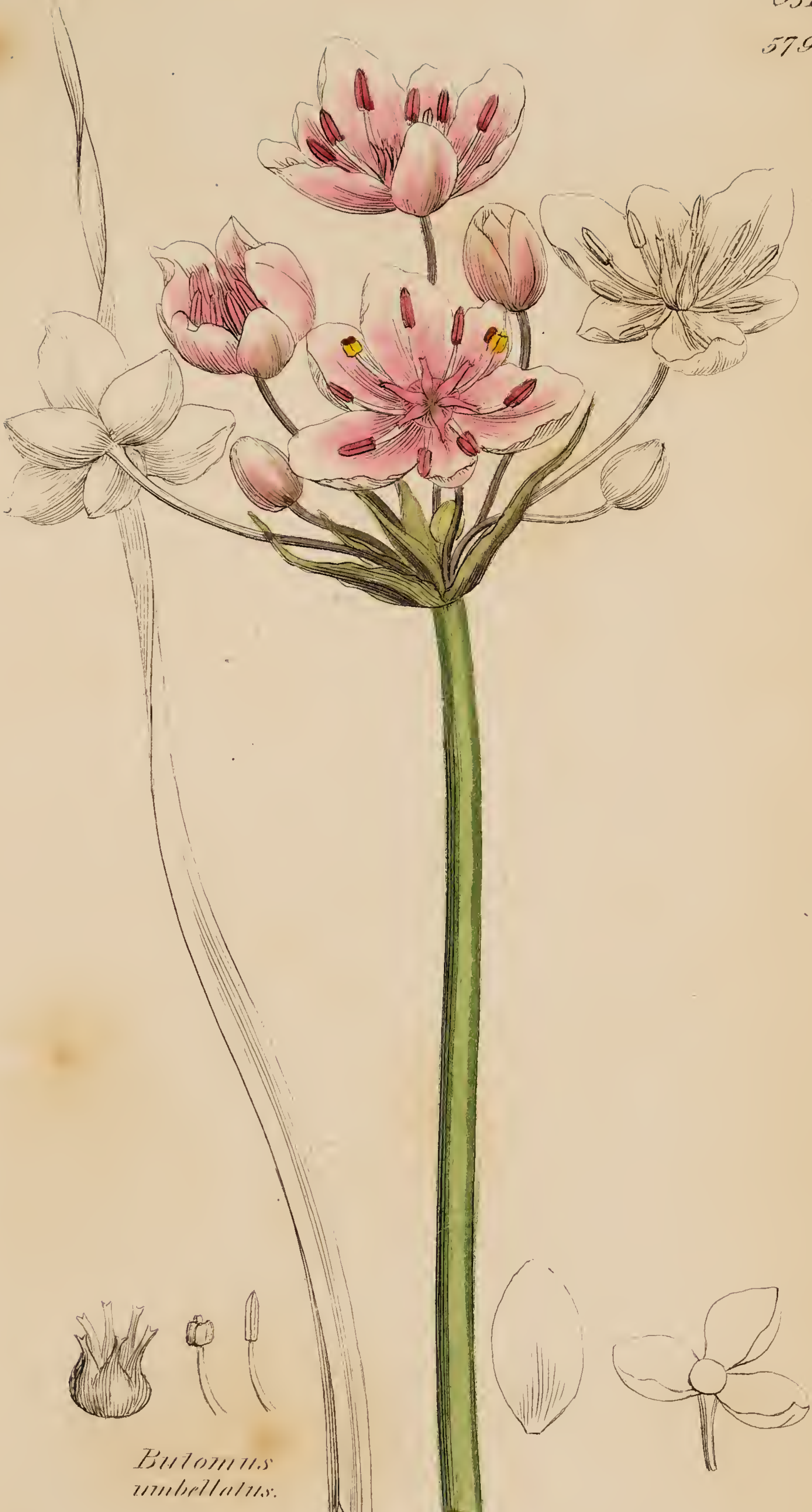


J.E.Bowman, del^t.

December 1^st 1836.

651

579.



Butomus umbellatus.